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ABSTRACT

As an aid in preservice and inservice teacher education, this handbook is intended to produce a vocational instructor who understands the rationale of bilingual education, is sensitive to the special needs of bilingual and limited-English-proficient (LEP) vocational students, and is not afraid to try new teaching techniques. The six chapters, which include practice questions, cover the following areas: (1) terminology associated with both bilingual education and vocational education; (2) the history of bilingual education, vocational education, and bilingual vocational education; (3) a detailed description of the needs of bilingual and LEP vocational students, along with a list of suggested practices to meet the needs; (4) a description of several approaches to designing a bilingual vocational education program and suggestions on how the instructor can get support from colleagues and the administration in establishing a program; (5) details on constructing a vocational course, from analyzing the occupation and its associated duties to developing lesson plans; and (6) a discussion of 20 commonly used teaching techniques and how each can be modified for multicultural vocational settings, along with several suggestions for communicating with LEP vocational students. Information about testing and resources in bilingual vocational education and prevocational English as a second language is appended. (Author/SW)

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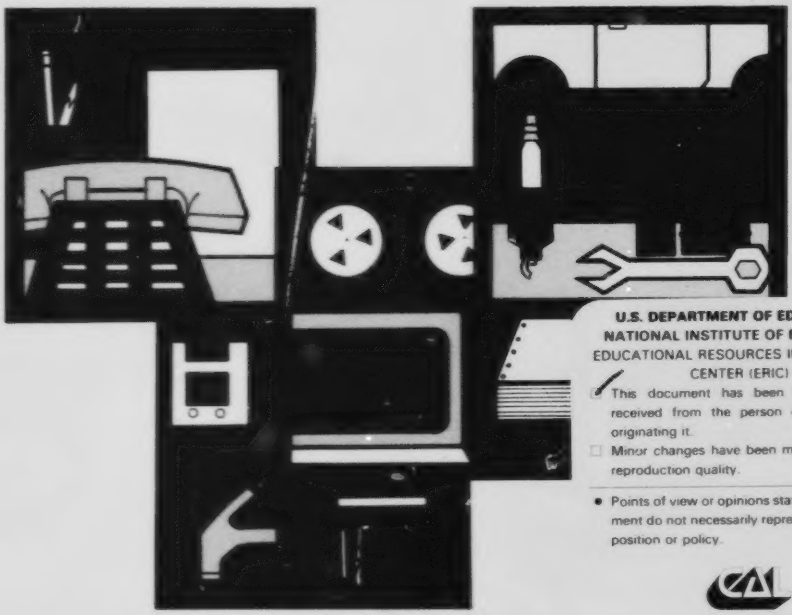
Foundations & Strategies for Bilingual Vocational Education

Curtis H. Bradley and Joan E. Friedenberg



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Foundations & Strategies for **Bilingual Vocational Education**

A Handbook for Vocational-Technical Education Personnel

by Curtis H. Bradley and Joan E. Friedenberg

Dedication

The essence of this handbook is the philosophical base and strategies necessary for vocational instructors, aides, and counselors to help individuals whose native language is other than English to prepare themselves to live a useful and productive life in our work-oriented society. It is our heartfelt wish to dedicate this handbook to the memories of those who have lost their lives in search of a new life in the United States.

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Preface

This handbook is intended for both the pre- and in-service training of vocational instructors who find in their classes more and more students with limited abilities in English.

Ideally, a non-bilingual vocational instructor receiving training in bilingual vocational education would also receive some second language and culture training to be able to better implement the methods and strategies presented in this handbook. It is not necessary for the monolingual English-speaking teacher to become fully bilingual; in fact, many of the models and techniques described here require minimal use of another language on the teacher's part.

The goal of this handbook is to help produce a vocational instructor who:

1. understands the rationale and philosophy of bilingual education,
2. is sensitive to the special needs and problems of bilingual and limited-English-proficient vocational students, and
3. is not afraid to try new teaching techniques to be better able to meet the needs of his/her students.

The handbook is divided into six chapters, with practice questions at the end of each. Areas covered include presentation of the most common terminology associated with both bilingual education and vocational education; the history of bilingual education, vocational education, and bilingual vocational education; a detailed description of the special problems and needs of bilingual and limited-English-proficient vocational students, along with a description of the practices and factors which contribute to these problems and needs and a list of suggested practices to minimize them; a description of several approaches to designing a bilingual vocational education program and some tips on how the instructor can get support (from colleagues and the administration) in establishing a program; details on constructing a vocational course, from analyzing the occupation and its associated duties and tasks to developing lesson plans; and a discussion of 20 commonly-used teaching techniques and how each can be modified for multicultural vocational settings, along with several suggestions for communicating with limited-English-proficient vocational students. The handbook concludes with appendices, including information about testing and resources in bilingual vocational education and pre/vocational ESL.

CHAPTER I

Terminology in Bilingual Vocational Education

BILINGUAL EDUCATION

The field of Bilingual Education is filled with terms and phrases which are usually associated with language, culture, education, and government. Many of the phrases are expressed as acronyms. Become familiar with the following terms and expressions.

Bilingual Education

The use of two languages, one of which is English, as media of instruction in a classroom or school program.

Bicultural Education

The inclusion in a school curriculum of a student's cultural traditions (as well as the cultural traditions of the U.S.). This includes information about the student's culture (history, traditions, beliefs, etc.), as well as the modification of teaching and testing strategies to accommodate a student's differing learning style.

Multilingual Education

The use of more than two languages (one of which is English) as media of instruction in a classroom or school program.

Multicultural Education

The inclusion in a school curriculum of information about the cultural traditions of various ethnic groups. The use of various teaching and testing strategies to accommodate students from various cultural backgrounds.

Transitional Bilingual Instruction

The use of bilingual instruction as a way to gradually transfer students from learning in their native language to learning only in English.

Maintenance Bilingual Instruction

The use of bilingual instruction as a way to maintain the student's native language while English is being learned and used as a medium of instruction.

L.E.P. (Limited-English-Proficient)
An expression used by the U.S. Department of Education to describe students who have a right to special educational services because of their limited abilities in English. May refer to either oral or written English.

L.E.S.A. (Limited-English-Speaking-Ability)
An expression formerly used by the U.S. Office of Education to describe students who have a right to special educational services because of their limited *speaking* abilities in English.

Language Dominance
For education purposes, the language in which a student will function best. A student's dominant language may depend upon the social situation.

Self-Concept
The images or ideas people have about themselves. These ideas are usually based on interactions over time with family members, peers, teachers, employers, mass media, and others with whom they interact in their daily lives.

Language/Linguistic Minority
A student who speaks a language other than that of the majority (English-speaking) group. A student may be a language minority without being L.E.P.

Monolingual
A person who speaks only one language (eg., monolingual English or monolingual Spanish).

ESOL
English for speakers of other languages.

TESOL
1. Teaching English to speakers of other languages.
2. The name of the national organization of ESOL teachers.

VESL
Vocational English as a second language.

ESL/TESL
English as a *second* language/Teaching English as a second language.

EFL/TEFL
English as a *foreign* language/Teaching English as a foreign language.

N.A.B.E.
National Association of Bilingual Education.

OBEMLA
Office of Bilingual Education and Minority Language Affairs (U.S. Government).

ESEA, Title VII
The seventh amendment to the Elementary and Secondary Education Act (ESEA), which specifically provides funds to school districts to establish bilingual education programs.

Linguistics
The study of language, including lexicon (vocabulary), phonology (sounds), syntax (grammatical structure), first and second language learning, discourse, and dialectology.

VOCATIONAL EDUCATION

The field of Vocational Education includes terms related to specific occupational areas, as well as those which are more general in nature. Familiarize yourself with the following expressions.

Vocational Education
The education, training, or retraining that is concerned with the preparation of students in the knowledge, skills, and attitudes necessary for initial employment, updating of existing skills, and advancement in employment in most recognized occupations requiring less than a baccalaureate for entry. In the broadest sense, vocational education includes guidance and counseling, job placement, and follow-up. Vocational Education is generally divided into the following program areas.

AGRICULTURAL EDUCATION
Concerned with preparing students for on-farm and off-farm occupations in agriculture ranging from agribusiness and animal science through crop production.

BUSINESS EDUCATION

Concerned with accounting, business law, bookkeeping, business English, office machines, shorthand, and typing as preparation for office and data processing occupations.

DISTRIBUTIVE EDUCATION

Concerned with preparing students for the broad range of occupations related to marketing, merchandising, and management.

HEALTH OCCUPATIONS EDUCATION

Concerned with preparation of support personnel in the medical and dental occupations, such as nurses' aides and dental assistants.

HOME ECONOMICS EDUCATION

Concerned with preparing students for careers in housing, home management, family economics or consumer education, family relationships, child development, and related occupations.

TRADE AND INDUSTRIAL EDUCATION

Concerned with preparing students for occupations in the crafts, skilled trades, semiskilled trades, and service occupations not included in one of the above five program areas.

INDUSTRIAL ARTS

Until 1973 was considered primarily general education. Industrial arts is now included as a federally reimbursed field of vocational education. Industrial arts programs are generally prevocational or preparatory to technical education studies.

TECHNICAL EDUCATION

Generally considered postsecondary vocational education in preparation for occupations requiring advanced mathematics and science. However, there is not general agreement on this definition.

Career Education

A concept wherein the total educational program is designed to help individuals prepare for and live a productive and satisfying life in a work oriented society. Vocational education is one part of career education.

Bilingual Vocational Education
A program of occupational training or retraining wherein instruction is provided in two languages, one of which is English.

Comprehensive Employment and Training Act (CETA)
This Act (P.L. 93-203) extended the role of the U.S. Department of Labor in encouraging and supervising the development of programs to provide job training and employment opportunities for economically disadvantaged, unemployed, and underemployed persons so that they can compete for, secure, and hold jobs.

Vocational Special Needs Students
Individuals who because of handicapping conditions or disadvantages (such as lack of reading, writing, or mathematical skills; economic conditions; or limited-English-proficiency) cannot succeed in the regular vocational education program without special assistance, service, or programs.

Work Study
A program that offers economically disadvantaged, full-time vocational education students a paid work experience, not necessarily related to a career goal, which allows them to continue their vocational education studies. Federal funding provides partial support for the compensation paid students and for development and administrative costs.

Cooperative Vocational Education
A program of vocational education for persons who, through cooperative agreement between the school and employers, receive instruction including required academic courses and related vocational instruction by alternation of study in school with a job in the student's chosen occupational field. The student receives both pay and academic credit.

Occupational Analysis
The process of dividing an occupation into a listing of the duties, tasks, and related steps in each task for the purpose of developing a course outline.

Apprenticeship
A formal training program of two or more years duration designed to help the learner develop the skills and knowledge

necessary to perform a recognized job in a safe and satisfactory manner.

American Vocational Association (AVA)

The major professional membership association for vocational educators. The AVA has divisions for each of the program areas and special interests of professional vocational educators.

Vocational-Technical Education Consortium of States (V-TECS)

A voluntary organization of states and two branches of the military to develop catalogs of performance objectives, criterion-referenced measures, and performance guides for use with students in vocational-technical education.

PRACTICE A

Match each expression with one appropriate meaning. There is only one best definition for each expression.

1. L.E.P. ______
2. ESL ______
3. Dominant Language ______
4. Transitional Bilingual Education ______
5. Monolingual ______

a. home or native language
b. a person who speaks English
c. limited ability in English
d. maintaining two languages in a school curriculum
e. teaching English overseas
f. language one functions best in
g. English taught to L.E.P. students in the U.S.
h. a person who speaks one language
i. using two languages as a means to gradually learn only in English

PRACTICE B

"Write out" the following acronyms.

1. LEP ______________________________
2. ESOL ______________________________
3. NABE ______________________________
4. TESOL______________________________
5. VESL ______________________________
6. BVE ______________________________
7. CETA ______________________________
8. AVA ______________________________

PRACTICE C

Complete the following items.

1. Name six program areas of vocational education.

    a. ____________________________
    b. ____________________________
    c. ____________________________
    d. ____________________________
    e. ____________________________
    f. ____________________________

2. Distinguish between work-study and cooperative vocational education.

3. Define Career Education.

4. Define Bilingual Vocational Education.

CHAPTER II
History of Bilingual Vocational Education

The history of Bilingual Vocational Education is actually three histories: (1) the history of bilingual instruction in the U.S., (2) the history of vocational instruction in the U.S., and (3) how from these, bilingual vocational instruction emerged.

BILINGUAL EDUCATION IN THE U.S.

The story of how immigrants and language minority students have been educated in the U.S. must be approached globally. That is, almost all occurrences around the world affect us here — in our large cities, in our small towns, and in our schools.

When most people think of Bilingual Education, they think of a *new* concept in educating language minority students — one which evolved in the 1960's and 1970's. The truth is that Bilingual Education has existed in this country since the 1500's! Thus, there are two phases to this history, the old and the new.

The Old: Bilingual Education before the 1960's

There are three phases to the "old bilingual education era."

1500's-1800's — BILINGUAL RELIGIOUS INSTRUCTION. The first languages spoken in the U.S. were those of the American Indians, who had been inhabiting this area for more than 20,000 years. In 1492, Columbus' expedition marked the beginning of the largest migration of people in history, the movement of Europeans to the "New World." The next languages to appear, then, were those of the Spanish, English, French, Dutch, Portuguese, Italians, Swedes, Germans, Irish, Scottish, and Swiss.

By the late 1500's Franciscan and Jesuit missionaries had established bilingual schools in the Southwest in order to introduce Christianity and the English language to the American Indians. Bilingual schools were also established in New England. These were Lutheran schools which provided religious instruction in English and German. With the emergence of the public schools, bilingual education programs increased.

1816-1870 — BILINGUAL PUBLIC INSTRUCTION. Bilingual Education continued in private religious schools, but was also adopted in the public schools.

1834	Pennsylvania passed a law allowing bilingual (German/English) instruction for students whose native language was not English.
1839	Ohio required German/English bilingual instruction for German-American children.
1850	Public bilingual instruction allowed in New Mexico and Arizona.
1854	Wisconsin allowed public bilingual instruction.
1857	Illinois allowed public bilingual instruction.
1861	Iowa allowed public bilingual instruction.
1867	Kentucky and Minnesota allowed public bilingual instruction.

1871-1960 — DECLINE OF BILINGUAL EDUCATION. As more and more immigrants entered the U.S., language legislation become more restrictive. The two world wars contributed to nationalist and isolationist feelings throughout the country, and "English-only" statutes became law in most states. English could now be the only medium of instruction.

The New: Bilingual Education after 1960

There are six particularly important events forming the "new bilingual education era."

1966 — CUBAN INFLUX. Because of a great influx of refugees from Cuba, the first (new) totally bilingual school was established at Coral Way Elementary School in Dade County, Florida.

1968 — BILINGUAL EDUCATION ACT (P.L. 90-247). The seventh amendment to the ESEA of 1965 was passed which stated:

> Recognizing—
>
> (1) that there are large numbers of children of limited English-speaking ability;

> (2) that many of such children have a cultural heritage which differs from that of English-speaking persons;
>
> (3) that a primary means by which a child learns is through the use of such child's language and cultural heritage;
>
> (4) that, therefore, large numbers of children of limited English-speaking ability have educational needs which can be met by the use of bilingual educational methods and techniques; and
>
> (5) that, in addition, children of limited English-speaking ability benefit through the fullest utilization of multiple language and cultural resources,
>
> the Congress declares it to be the policy of the United States, in order to establish equal educational opportunity for all children (A) to encourage the establishment and operation, where appropriate, of educational programs using bilingual educational practices, techniques, and methods, and (B) for that purpose, to provide financial assistance to local educational agencies . . . in order to enable such local educational agencies to develop and carry out such programs in elementary and secondary schools. . .

The Bilingual Education Act provided funds for:

1. the establishment, operation, and improvement of bilingual education programs in elementary and secondary schools for children from low-income families
2. pre-service and in-service personnel training (teachers, aides, counselors)
3. adult education for parents of children participating in bilingual education programs
4. pre-school programs
5. technical assistance
6. the creation of an Office of Bilingual Education in the Federal Government
7. the creation of a National Advisory Council on Bilingual Education
8. research and demonstration projects
9. assessment of needs
10. development of materials
11. dissemination of materials through a national clearinghouse
12. programs for drop-outs or potential drop-outs having need of bilingual programs

*13. programs conducted by accredited trade, vocational, and technical schools

1970 — MEMO FROM THE OFFICE OF CIVIL RIGHTS.
The Office of Civil Rights of the U.S. Department of Health, Education and Welfare issued the following memorandum which was intended to reflect that office's philosophy that schools should create a culturally and linguistically relevant approach to education to insure that all students receive equal access to a full education.

> Where inability to speak and understand the English language excludes national origin minority group children from effective participation in the educational program offered by a school district, the district must take affirmative steps to rectify the language deficiency in order to open its instructional program to these students.

1974 — LAU vs. NICHOLS.
(March 1970) Thirteen non-English-speaking Chinese-American students filed suit in the Federal District Court in San Francisco against the president of the school board, Alan Nichols. They alleged that 3,000 Chinese-speaking students were being denied equal rights to an education because they could not understand English — the language used by their teachers and in their textbooks. The school district argued that since all children were provided with the same educational setting, there was no denial of rights. The federal court agreed with the school district.

(January 1973) The Chinese-American students appealed this decision to the U.S. Court of Appeals for the Ninth Circuit. This court upheld the decision of the lower court.

(June 1973) The students petitioned the U.S. Supreme Court and the case was heard in December 1973.

(January 1974) The Supreme Court issued a unanimous decision reversing the Appellate Court opinion. They declared:

> There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education.

This decision was based on Title VI of the Civil Rights Act (1964) which "prohibits exclusion from programs and denial of benefits to any person on the basis of race, color, or national origin."

1974 — (AMENDED) BILINGUAL EDUCATION ACT (P.L. 93-380). The first Act was amended so that children no longer had to come from low-income families. Funds are provided for more assessment and evaluation, research, materials development, dissemination, and training.

1975 — LAU REMEDIES. Based on the *Lau vs. Nichols* decision, the Office of Civil Rights (HEW) set up a task force which drew up guidelines to aid school districts so that they would not be found in violation of the decision. The document produced by this task force, known as the *Lau Remedies,* provides detailed suggestions so that schools may assess the language and cognitive abilities of LESA (now LEP) students and provide them with a meaningful education. These remedies have never become law.

VOCATIONAL EDUCATION IN THE U.S.

Vocational education was born when human beings first realized that the transmission of skills and knowledge was essential to the welfare of the family and tribe. Therefore, vocational education can be thought of as originating in caves about 50,000 years ago. A more conservative view is that recorded history shows that vocational skills were taught through apprenticeships and informal schools more than 6,000 years ago. Regardless of the point of view adopted, vocational education pre-dates the founding of the U.S. by thousands of years.

During the first 150 years of founding and expansion of the U.S., the major occupation was farming. The typical family raised its own food and made its own clothing, furniture, tools, and implements. Some manufacturing was carried on in towns. Items such as hardware, cloth, jewelry, guns, and ammunition were made by craftspersons working in their own shops with simple tools. Apprenticeship was the primary mode of vocational education.

During the 19th century, what is now known as the first industrial revolution began creating demands for products which were manufactured by machine opertors who did not need long periods of training. The increasing availability of factory jobs for which long periods of training were not needed caused apprenticeship to begin to decline. Factory workers needed very little training. They worked long, hard hours for little pay and were easily replaced by other unskilled, but willing, hands. The ever increasing demands for manufactured goods resulted in even more exploitation of workers, particularly children. Educational leaders recognized the need to provide substitutes for the education previously provided through apprenticeship. Thus a variety of individual schools concerned with occupational education emerged during the 19th century. It was not until the 20th century, however, that a systematic national effort to provide universal vocational education was implemented. Nevertheless, one piece of 19th century federal legislation provides clear evidence of a growing federal concern for the need to encourage and support occupational education.

MORRILL LAND GRANT ACT OF 1862. This Act provided 30,000 acres to each state for each senator and representative in Congress. Proceeds of the sale of lands were to be used for the establishment of a college in each state to provide instruction in the agricultural and mechanical arts. These "land grant" colleges were established in each state, and most have developed into influential state universities.

This Act is significant because it was the first aid provided by the federal government specifically for vocational education. This federal support was provided at a time when universal, free public high school education had not yet been established.

During the 20th century, a good deal of legislation advanced vocational education, and we will consider a few of the most important of these.

THE SMITH-HUGHES ACT OF 1917 (P.L. 64-347). The Smith-Hughes Act provides funds annually to the states for vocational education in agriculture, home economics, trade and industrial education, and for teacher training in each of these fields. Funds are also provided for administration of the program on a national level by a Federal Board for Vocational Education.

States were required to submit an annual plan for vocational education prepared by a State Board of Vocational Education in order to be eligible for the funds provided by this Act. Each state had to demonstrate through its approved annual plan that: (1) the federally aided program of vocational education would be under public supervision and control, (2) the purpose of vocational education would be to prepare for useful employment, (3) the vocational education would be of less than college grade and designed to meet the needs of persons over 14 years of age who had entered upon or were preparing to enter the occupation for which they were receiving training, and (4) that the states and/or local community would provide the necessary plant and equipment.

The Smith-Hughes Act is considered by many vocational educators to be the most important piece of federal vocational education legislation because, in addition to being *permanent* legislation, it:

1. created State Boards of Vocational Education
2. established that a federal-state-local cooperative relationship could be effective
3. mandated teacher training
4. established the need for state plans
5. gained acceptance of the concept of public education institutions training workers
6. established the concept of selectivity
7. established that vocational education is related to the national economy and security
8. established the need for occupational and professional competence of vocational education personnel.

THE GEORGE-DEAN ACT OF 1936 (P.L. 74-673). This Act added distributive occupations to vocational education authorizations.

THE HEALTH AMENDMENTS ACT OF 1956 (P.L. 84-911). Added practical nursing and health occupations to vocational education authorizations.

THE VOCATIONAL EDUCATION ACT OF 1963 (P.L. 88-210). The purpose of the Vocational Education Act of 1963 was to assist states in maintaining, extending, and improving existing vocational programs, in developing new programs, and in providing employment for needy youth while continuing full-time vocational preparation.

Funds from the 1963 Act could be used for the following:

1. Persons attending high school
2. Persons who have entered the labor market needing training or retraining for employment stability or advancement
3. Persons who have academic, socio-economic, or other handicaps to success in regular vocational education programs
4. Construction of area vocational school facilities
5. Ancillary services and activities to assure quality in all vocational education programs

Ten percent of the sums appropriated for each fiscal year were to be used by the Commissioner of Education to allocate on a project basis for specific research, teacher training, curriculum development, and experimental or demonstration projects in vocational education. Special authorizations were made for work study programs and residential vocational schools. Programs designed to prepare individuals for gainful employment in business and office occupations were added to vocational education authorizations.

The 1963 Act is viewed as landmark vocational education legislation because of its emphasis on the needs of the individual rather than the specific needs of the labor market and because of the broader definition of vocational education which it provides. The 1963 Act and its 1968 Amendments (P.L. 90-576) are thought of as a move in the U.S. Congress from a concern for "people for programs" to one of "programs for people." This concern is seen quite clearly in the phrase that was added to the purpose section of the 1968 Amendments: "So that persons of all ages in all communities will have access to vocational training, retraining or upgrading suited to their needs, interests, and ability to benefit."

THE EDUCATION AMENDMENTS OF 1972 (P.L. 92-318). These amendments added industrial arts to those programs eligible for federal vocational education funding.

THE EDUCATION AMENDMENTS OF 1976 (P.L. 94-482) TITLE II: THE VOCATIONAL EDUCATION ACT. This Act brought new focus to vocational education in the areas of planning, programs, and sex bias and discrimination.

I. Planning

Improved planning through broad involvement of the community and the increase of research and accountability in the process.

A. Advisory councils on the national, state, and local levels to provide for increased involvement of persons with many interests and from many sectors of our society.
B. Similar involvement from a variety of individuals in the development of each state's five year plan, annual program plan, and accountability reports to provide a direct relationship between planning and evaluation.
C. National Advisory Council on Vocational Education
    1. Wider representation; must include new and emer-

ging occupations, vocational guidance and counseling, non-profit private schools, correctional institutions, manpower, and women.

  2. Responsibilities expanded
    a. Preparation of general regulations and budget requests for the operation of vocational education.
    b. Provide technical assistance and leadership to state advisory councils.
    c. Reports to the President, Congress, and agencies.

II. Programs

Extension, improvement, and, where necessary, maintenance of existing programs.

A. An apparent attempt to be selective with older programs in terms of continuation.
B. Training programs to be initiated for new and emerging occupations.
C. Planning, research, and accountability in the legislation as a mechanism for program improvement.
*D. Handicapped, disadvantaged, and limited-English-speaking are a high priority.
E. Energy education will be supported.
F. Program improvement
  1. National Center for Vocational Education
  2. National Coordinating Committee
*G. Vocational guidance and counseling for individuals with limited English proficiency and offenders in correctional institutions.
H. Part-time employment for youth who need the earning to continue their vocational education.

III. Sex Bias and Discrimination

Approaches to overcome sex bias and sex discrimination in vocational education programs.

A. Personnel to be employed in each state to
  1. Create awareness of sex stereotyping.
  2. Gather, analyze, and disseminate data on the status of men and women.
  3. Develop and support actions to correct problems.
  4. Review distributions of grants by the state board to assure that the interests and needs of women are addressed.

   5. Review all vocational education programs for sex bias.
   6. Submit recommendations to overcome sex bias and stereotyping.

B. State and National Advisory Councils must have *at least* one woman in membership.

C. State plans must set forth policies and procedures to assure equal access.

D. Curriculum materials must eliminate sex bias and sex-role stereotyping. Both sexes are to be encouraged to participate in non-traditional roles.

THE EMERGENCE OF BILINGUAL VOCATIONAL EDUCATION

Although Bilingual Vocational Education does not have as clear-cut a history as either of its two separate components, a growing national interest has become evident from both the "bilingual" and the "vocational" points of view. That is, Bilingual Education has taken a greater interest in including vocational training among its programs and priorities, and Vocational Education has demonstrated a stronger interest in the needs of limited-English-proficient students. The following outline chronologically illustrates the growing national interest in Bilingual Vocational Education.

1966 — The Adult Education Act (P.L. 91-230)

This Act authorized grants to states for the development and expansion of programs for adults. It specifically included "persons of limited-English-speaking ability" and encouraged not only instruction in English but also instruction in the native language.

1968 — The Bilingual Education Act (P.L. 94-247)

This Act specifically included "programs conducted by accredited trade, vocational or technical schools," in its authorization of funding to establish bilingual education programs. (This Act was amended in 1974 and in 1978.)

1973 — The Comprehensive Employment and Training Act (CETA)

This Act provided funds to state and local governments to provide labor services (including employment counseling supportive services; classroom, educational, and occupational skills training; on-the-job training, work experience, and public employment). CETA specifically identified LESA persons as a priority.

1974 — Vocational Education Amendments (P.L. 93-380)

These amendments called for increased concern for the disadvantaged, including those with linguistic and cultural differences. Part "J" provided funds for several bilingual vocational training programs.

1976 — The Education Amendments of the Vocational Education Act (P.L. 94-482)

This Act specifically included funds for bilingual vocational training, in addition to bilingual vocational instructor training, and bilingual vocational materials development. This is considered the most important legislation for Bilingual Vocational Education.

Subpart 3, Section 181
Bilingual Vocational Training
Statement of Findings:

> The Congress hereby finds that one of the most acute problems in the United States is that which involves millions of citizens, both children and adults, whose efforts to profit from vocational education are severely restricted by their limited English-speaking ability because they came from environments where the dominant language is other than English; that such persons are therefore unable to help to fill the critical need for more and better educated personnel in vital occupational categories; and that such persons are unable to make their maximum contribution to the Nation's economy and must, in fact, suffer the hardships of unemployment or underemployment. The Congress further finds that there is a critical shortage of instructors possessing both the job knowledge and skills and the dual language capabilities required for adequate vocational instruction of such language-handicapped persons and to prepare such persons to perform adequately in a work environment requiring English language skills, and a corresponding shortage of instructional methods and techniques suitable for such instruction.

In addition to the federally-funded efforts, a number of states are currently supporting programs of bilingual vocational education and bilingual vocational instructor education, and at least one state has mandated bilingual vocational instructor certification.

DISCUSSION AND ANALYSIS

1. Describe Bilingual Education between the 1500's-1800's.

2. Why did the "old" bilingual education decline?

3. Give two examples of how global issues have affected U.S. classrooms.

4. Did the Bilingual Education Act *require* bilingual instruction? (Explain.)

5. Did the *Lau vs. Nichols* decision *require* bilingual instruction? (Explain.)

6. How would you describe the present "climate" for bilingual instruction?

7. Describe Vocational Education in the U.S. before the 20th century.

8. Why is the Smith-Hughes Act considered by some to be the most important piece of federal vocational legislation?

9. What was the purpose of the Vocational Education Act of 1963?

10. Why is P.L. 94-482 important to Bilingual Vocational Education?

CHAPTER III
Problems and Practices in Bilingual Vocational Education

All vocational students have special problems and needs, and vocational instructors know that they must assess the skills, knowledge, and attitudes that students bring to the vocational education setting and adjust their instruction accordingly. This is especially important for vocational instructors of bilingual and limited-English-proficient students.

This chapter will examine the special problems of bilingual and limited-English-proficient vocational students as they are seen by teachers in the following areas: (1) linguistic, (2) cognitive, and (3) affective. Following a description of the problems will be a discussion of instructional, grouping, attitudinal, and situational factors which contribute to these problems. The final sections will describe some practices which can minimize these problems.

THE SPECIAL PROBLEMS OF BILINGUAL AND LIMITED-ENGLISH-PROFICIENT VOCATIONAL STUDENTS

Linguistic Problems

Language-related difficulties are the most notable of the special problems of limited-English-proficient vocational students. While some of the problems to be described are the result of linguistic difficulties, others are actually problems of attitude towards natural language phenomena.

The most obvious language-related problem of limited-English-proficient vocational students is their difficulty in understanding the English-speaking teacher, counselor, librarian, administrator, and their English-speaking peers. This problem presents frustrations not only to the students, but to the vocational instructor as well. Many of these students have even more difficulty understanding the English textbooks, films, manuals, and other training materials. Sometimes vocational teachers are fooled by their students' ability to speak fluent "street" English, although these students may have difficulty understanding "classroom" English.

In situations where the vocational instructor is also bilingual, students sometimes speak a variety of their native language which differs from the teacher's dialect or variety. Teachers often believe that their students are speaking their native language incorrectly and proceed to correct them. Many bilingual vocational students like to codeswitch—that is, to mix two languages. Teachers sometimes erroneously believe that codeswitching students cannot speak either language appropriately. In other instances, however, bilingual vocational students *do* have vocabulary weaknesses in both languages, especially in technical vocabulary.

Cognitive Problems

Like the language-related problems, most problems which seem to be cognitive-based to teachers are actually the result of other difficulties. Many limited-English-proficient vocational students, for example, do more poorly than other students on both standardized and classroom exams. The inexperienced vocational instructor might believe this to be the result of a cognitive problem, instead of the students' inability to comprehend the language of the classroom, the language on the test, or the students' lack of experience with the particular testing procedure employed. The vocational instructors' suspicions may be strengthened when their limited-English students score low even on math exams. A closer look should tell these teachers, however, that most errors will probably occur in word problems, and an apparent difficulty in calculation turns out to be one of reading comprehension.

Finally, vocational teachers are also often fooled by their students' apparent ability to read in English. Many limited-English vocational students *do* decode rather well in English, but unfortunately they often comprehend little. These students are still more fortunate than the thousands of adult refugees who seek vocational training, but who cannot read in any language.

Affective Problems

The affective or attitudinally-based problems of bilingual and limited-English-proficient vocational students may include negative self-concepts, negative attitudes towards others, general feelings of confusion, and feelings of frustration.

Many vocational students, for example, feel that their native language is both academically and socially unworthy. These students are also often embarrassed because they are or perceive themselves to be different. These feelings have been documented by teachers who have seen their bilingual students refuse to talk about their home culture or speak their home language in school, and by parents of bilingual children who receive answers in English to questions they ask of their children in their native language.

To complicate matters, limited-English-proficient students often also believe that they are less intelligent than the other students. These feelings can stem from having poor grades, having a different type of preparation, taking different approaches to tasks, having difficulty with the language, and from the negative attitudes of teachers, counselors, and peers.

Some bilingual vocational students have negative feelings towards non-bilingual students, towards bilinguals from other ethnic/linguistic groups, or towards those from their own ethnic group. Negative feelings towards non-bilingual (Anglo-speaking) peers may be the result of anger towards that group in general or it may be the result of a desire to be like that person. Sometimes bilingual students from one ethnic/linguistic group feel a rivalry towards bilinguals from other groups. Other times there are negative feelings within a given ethnic group. Teachers have reported that there is often disagreement among students within a given group as to how much they should assimilate into the Anglo-speaking culture. There are students who feel strong loyalties towards their home cultures and students who totally reject the home culture in favor of the Anglo-speaking culture. Teachers often report difficulties between Mexican-American students and Mexican students and between Puerto Rican students from the island and students from the mainland. While Mexican-American and mainland Puerto Rican students often speak more English, they are also often ridiculed for their variety of Spanish and their abilities to codeswitch. Other types of "in-group" difficulties have been seen in some of the Southeast Asian refugees who bring with them a class system and inter-group animosities unknown and certainly not easily understood by American teachers.

Younger vocational students who are refugees often face confusion as they enter classrooms and training centers in a country which they have been taught to condemn for many years. This confusion stems not only from a demand to immediately accept this new country, but also from the country's apparently strange ways.

Adult vocational students often experience feelings of frustration and powerlessness when they are forced to repeat training they've already acquired before coming to the United States; when they encounter housing, financial, and visa problems; and when they miss loved ones not in the U.S.

PRACTICES AND FACTORS CONTRIBUTING TO THE PROBLEMS

The factors which contribute to the problems of bilingual and limited-English-proficient vocational students can be classified as instructional, grouping, attitudinal, and situational.

Instructional Practices

Many of the problems faced by limited-English-proficient vocational students are the direct result of curricular practices in the classroom and school. For example, when a vocational program never utilizes a student's native language in the classroom, the student will not only have difficulty understanding all the material, but may also come to believe that his/her native language is not worthy enough to be used in the school setting.

Another example of inappropriate curricular practices can be seen in the standardized and teacher-made exams taken by limited-English students. Not only are these exams rarely printed in the students' native language, but they are also often culturally inappropriate.

Sometimes the practices of a *bilingual* vocational program actually contribute to the problems they are trying to eradicate. For example, although it is certainly admirable to include an ESL or VESL component in a vocational program, it is not advisable to emphasize grammatical perfection in the V/ESL class over basic communication. By demanding perfection in English from these students, we may embarrass them, make them afraid to make mistakes, and ultimately inhibit their desire to learn English. Another problem of many bilingual programs is in the selection of non-English instructional materials. Instead of taking the time to develop native language instructional materials which are appropriate to the cultural setting and to the students' language variety, many bilingual projects unjudiciously "import" instructional materials from other countries—materials which are sometimes irrelevant and inappropriate to a U.S. vocational setting.

Grouping Practices

We have seen how curriculum-related practices can contribute to problems for limited-English-proficient vocational students. Vocational programs can also create difficulties for these students by how they group students. For example, limited-English-proficient students are often pulled out of class for special educational programs and miss other important instruction. Sometimes, limited-English-proficient vocational students are thought mistakenly to have learning disabilities by virtue of their limited abilities in English and are grouped accordingly. Other times, limited-English vocational students are placed in a lower grade or lower ability group because of their low abilities in English. Finally, bilingual students are often separated from other students for great parts of the day. All of these practices contribute to these students' feelings of being less able and generally different from other students.

Attitudinal Practices

Although well-intentioned, many vocational instructors contribute to the problems of their limited-English-proficient students because of certain attitudes they carry and convey in the classroom. In their sometimes over-enthusiastic efforts to assist their students in learning English, for example, some vocational instructors adhere to "English-only" statutes, reminiscent of earlier times. By discouraging the use of the native language too much, a teacher may help to enhance negative feelings towards English or towards the students' native language. A limited-English vocational student can come to think of his/her native language as "bad" if discouraged from using it (besides being prevented from learning a concept which was not understood in English).

Sometimes, again in their efforts to help, vocational instructors expect less from their language minority students. These students are generally conscious of this attitude, and it frequently fosters feelings of inferiority and embarrassment.

Vocational teachers who are bilingual also sometimes convey attitudes which are not helpful. For example, bilingual teachers sometimes criticize or correct their students' use of their native language because it is a different dialect or it is mixed with English. Sometimes bilingual vocational teachers who are themselves language minorities have many of the problems their students have, including a lack of ethnic pride. Vocational instructors who are from a language minority background may, as a result of past or present discrimination, feel a lack of ethnic pride, and this may sometimes negatively affect their treatment of students.

Situational Factors

Limited-English-proficient vocational students sometimes have problems which are the result of a combination of factors--factors which *cannot* be controlled by the school. It is still important, however, for the sensitive vocational instructor to be aware of these factors.

One such factor is the differing customs associated with schools. For example, LEP students born outside the U.S. are often accustomed to wearing a specific uniform to school. In addition, it would not be uncommon for males and females from other countries to have had separate learning facilities and for them to have been limited to certain occupational training by virtue of their sex. Although sex-role stereotyping certainly exists in the U.S., federal and state agencies have enacted mandates and provided funds to encourage sex equity in all occupational training. Moreover, vocational training facilities in this country are, for the most part, co-educational. Another factor associated with U.S. schooling which could cause confusion for LEP students includes teaching styles. For example, many LEP students are accustomed to occupational training which depends heavily on traditional techniques of lecturing and book-learning or on informal apprenticeships and on-the-job training. Students coming from developing countries are sometimes overwhelmed by the facilities available at some of our vocational schools and by the innovative techniques (e.g., demonstration, individualized learning packages, laboratory practice, etc.) which they encounter. These students are also sometimes perplexed by the relatively competitive spirit they find in our schools and by the informality of many of our teachers.

Another situational factor which contributes to the problems of language-minority vocational students is the discrepancy which is often found between the values observed in school and the values students are accustomed to at home. Although this is probably true for all vocational students, the value differences are even greater for language-minority students.

A third factor is the lack of role models (from their ethnic group) for bilingual vocational students to emulate. This situational factor is dependent on geographic location, demography, and socio-economic factors. For example, it is more true of Mexican-American and Indochinese populations residing in small towns and of Haitians in Miami than it is of Cubans in Miami.

Finally, situational factors which often cause frustration in adult vocational students include difficulties in securing school records from certain countries and difficulties in evaluating and validating past work experience, education, and training.

SUGGESTED PRACTICES IN BILINGUAL VOCATIONAL EDUCATION

Thus far this chapter has described many of the special problems faced by limited-English-proficient students in the U.S. as they attempt to acquire vocational training. This section will provide suggestions which can help minimize these problems. While some of the suggested practices will be clear and simple to employ, others may require more in-depth explanation. In the latter cases, following chapters will provide you with more specific instruction.

Practices which can minimize the difficulties encountered in multicultural vocational settings can be grouped into three categories: (1) Instructional Practices, (2) Programmatic Practices, and (3) Attitudinal Practices.

Instructional Practices

Instructional practices deal with language(s) of instruction, curriculum content, instructional activities, instructional materials, and evaluation.

- "Multiculturalize" your instruction to include traditions, values, and practices of various cultural groups, including their contributions to U.S. society.
- Provide your bilingual students with opportunities to describe some of the vocational practices in their countries.
- Provide for different *styles* of learning in your teaching techniques. Make sure the techniques you choose approximate the activities required on the job. (Chapters 5 and 6.)
- Provide some instruction in the native language. This is possible even when the instructor is *not* bilingual. (Chapters 4-6.)
- Make sure that all safety signs are translated in all the appropriate languages.
- Emphasize communication in English instead of formal grammatical perfection.
- Label the materials, supplies, and equipment in your classroom or laboratory in all appropriate languages.
- Pay special attention to how you communicate in English. (Chapter 6.)
- Expand the use of audio-visual aids. (Chapter 6.)
- Use bilingual instructional materials. Do not attempt to translate entire texts. Instead translate only the key concepts and objectives. (Chapters 5 and 6.)
- Expand the individualization of instruction. (Chapter 6.)
- Provide the ESL or any other instructor who might be

providing the students with remedial assistance with basic vocational terms which are important for the students to know. (Chapter 5.)

- Obtain an assessment of your students' needs:
    —in English
    —in their native language
    —in literacy
    —in achievement, aptitude, and interests (Appendix C)
- Include in your instruction information about appropriate job behavior in the U.S., including how to get along with peers. (Even native speakers of English will benefit from this.)
- Provide information about the types of occupations in the U.S., including information about salaries and fringe benefits.

Programmatic Practices

Programmatic practices include grouping and administrative practices (Chapter 4).

- In secondary programs, whenever possible group students by age instead of by English ability.
- If you have difficulty communicating with your limited-English-proficient students, try to obtain a bilingual aide. If there are no funds available, perhaps a community member would volunteer his/her services for an hour or two.
- Use peer tutors. A peer tutor may be a monolingual English-speaking "buddy" who is a good communicator or a bilingual "buddy" who can tutor in the native language.
- Provide for a means to evaluate your students' past vocational instruction and experiences. This will be especially challenging for refugee students who could not secure any documentation of their past experiences.

Attitudinal Practices

Having a positive attitude towards language minority students is important. Equally important is conveying to your students that they are welcome, accepted, and appreciated.

- Academic standards should not be lowered for limited-English-proficient students.
- Value cultural differences and avoid stereotyping.
- Be sensitive to the students' special language and psychological needs.
- Give students reasons to be proud of their native language and culture.

- Make an effort to learn at least a little of the students' languages.
- Make an effort to learn about the cultural behaviors and the educational systems from which immigrant students come.
- Respect the students' native language dialect.
- Be aware of the types of behavior which are valued in the home, and minimize opportunities for opposing kinds of behavior in school.
- Help to resolve conflicts which may arise between the home and school cultures.
- Bilingual and non-bilingual staff should share their ideas and knowledge on multiculturalism, and, above all, they should maintain a friendly relationship with one another. (If we do not mix as professionals, how can we expect our students to?)
- Keep in mind that one of the fundamental goals of Bilingual Vocational Education is to provide culturally different students with a dignified learning experience—one which will build in them healthy self-concepts and happy and successful lives.
- Remember that your students *can* be successful in the U.S. job market.

HOW OTHERS CAN HELP

The vocational instructor, alone, should not have to assume all the responsibility for providing LEP students with an equitable and effective educational experience. Indeed, administrative support is crucial (see Chapter 4). However, there are two other individuals who can make an enormous contribution to the success of LEP vocational students—the aide and the counselor or Placement Specialist.

Ways to Effectively Use a Bilingual Aide for Bilingual Vocational Instruction

A bilingual vocational aide:

- Helps to assess students' language and occupational needs
- Introduces the instructor's presentations in the native language
- Reinforces the instructor's presentation in the native language
- Has brief question-answer periods in the native language
- Reinforces safety information in the native language
- Translates instructional materials (including instruction

sheets, portions of textbooks, and safety signs)
- Tutors LEP students (in small groups or individually) in the native language
- Helps to evaluate student progress
- Acts as an advocate for or liaison between the LEP students and the school
- Advises the instructor of any cultural biases in the learning activities, instructional materials, or tests

A vocational instructor who has the assistance of an aide should remember to:

- *Practice proper professional etiquette*
  - —Speak to the aide like a professional
  - —Insist that the students address the aide as they address the instructor
  - —Create a team image, not one of superior and subordinate
  - —Avoid a competitive attitude with the aide
  - —Be a good listener
- *Plan together in advance*
  The aide will need adequate time to prepare the pre and post presentation translation.
- *Leave time for the aide*
  Remember to leave time for the aide to introduce and reinforce your presentations in the non-English language and to hold brief question-answer periods in the non-English language.
- *Provide the aide with instructional materials well in advance*
  Allow the aide adequate time to translate textbook segments, instruction sheets, and exams.
- *Provide working space*
  Provide an area in the classroom where the aide can work with individuals or small groups, or set up a mini bilingual resource center.

The Vocational Counselor's Contribution

In spite of the unrealistic student to counselor ratio which makes the counselor's task difficult, vocational counseling is essential to LEP students. Fortunately, there are a number of specific techniques and services that any vocational counselor can incorporate into his/her repertoire to be immediately effective with LEP vocational students.

The vocational counselor of LEP students should:

- Assess the students' proficiency in
  - —understanding and speaking English
  - —reading and writing English

  - —reading and writing the native language (See Appendix C)
- Help the students choose an occupation (See Appendix C)
- Help students validate their past occupational training and experience
- Help vocational instructors develop relevant counseling skills for use with their students
- Conduct employability skills training, including completing a job application, participating in an employment interview, job grooming, and general job behavior and habits
- Recruit community resources to identify individuals, groups, and organizations that would have a special interest in helping LEP students by providing aides, translators, job referrals, etc.
- Refer LEP students to the appropriate agency for personal counseling, medical assistance, financial assistance, immigration information, legal services, etc.

DISCUSSION AND ANALYSIS

1. Throughout this chapter, the terms limited-English proficient vocational student, bilingual vocational student, and language minority vocational student were used. What do these expressions mean?

2. Some problems which were said to have been language-related are actually problems of attitude. Identify two of those problems which are truly language-based and two which are often incorrectly perceived as language problems.

3. Parents of bilingual children often complain that when they speak to their children in their home language, the children answer in English. Why could this be considered a problem?

4. Write down what you think are three of *your* language minority vocational students' greatest problems (or those of a hypothetical group described by your instructor).

5. What are the causes for these three problems?

6. What are some *instructional, programmatic,* and *attitudinal* practices which might alleviate the three problems you have identified?

7. What role could an aide and/or counselor play in carrying out the practices identified in No. 6?

CHAPTER IV
Bilingual Vocational Program Designs

It may not seem immediately obvious why a discussion of program designs is important for instructors, as well as for administrators. It is the instructor who usually first becomes aware of the problems and needs of students. It is also the instructor who usually seeks remedies and approaches to these problems and needs. This instructor then becomes an invaluable resource, and it is under this premise which we proceed to discuss the several ways of implementing a bilingual vocational program.

Unlike other areas in the field of education (i.e., elementary and secondary education), vocational education naturally lends itself to bilingual education, both in philosophy and in practice. For example, vocational education more than any other area of education has as one of its primary goals to instill confidence in students. This is philosophically parallel to bilingual education, which seeks to enhance the self-concepts of limited-English-proficient and bilingual students. In practice, vocational education also emphasizes individualized instruction. Similarly, bilingual education focuses on assessing the linguistic and cognitive skills of each student and providing them with whatever educational services they require. In addition, vocational learning materials are often competency-based and almost always simple, clear, and straight-forward enough to be easily translated. Thus, it should not be too difficult to modify a vocational education program to meet the needs of language minority students.

The vocational instructor teaching LEP students often becomes aware of the need for more support from the school administration. It is not possible to provide suggestions that will invariably assist that teacher in obtaining more support. However, there are some general suggestions that have proved useful to many concerned teachers.

First, and foremost, it must be remembered that the administration is faced with a multitude of demands, often conflicting, for the limited resources available to the school. The experienced teacher understands that it is essential to help the administration clearly understand the need for support and why this support for bilingual vocational education must become a top priority among the many competing demands facing the administration.

In essence, the experienced teacher understands that the school administration must be convinced that a problem exists, *why* the problem must be resolved, *what* would resolve it, and *how* the solution can be implemented utilizing a minimum of the school's valuable resources. The experienced teacher also understands that convincing the administration is accomplished more efficiently if others in addition to the teacher enthusiastically endorse the need for support.

1. Invite other teachers, counselors, and advisory committee members to observe the instructional program in action. Have them see some of the success that is obtained from using instructional material translated into the students' native language, the use of peer tutors, and any other program innovation you have been able to implement.
2. Form an interest group of individuals from suggestion 1 above, plus interested parents and community members. Have the interest group identify
    a. the problems
    b. some possible instructional solutions
    c. some financial/material sources.
3. Invite the department head to meet with your group and present a-c above to him/her. Provide the department head with a typed summary. Do not forget to express your appreciation for the department head's having taken the time and interest to meet with your group. Ask the department head to discuss the matter with other department heads and to then communicate with the principal or director. Ask the department head for a date by which he/she can provide your group with an answer. Schedule another meeting for that time.

In their comprehensive study of successful strategies in Bilingual Vocational Education, Troike, Golub, and Lugo (1982) identify several conditions which contributed to the institutionalization of bilingual vocational instruction. They included: consistent pressure from the community; a large percentage of limited and non-English speaking students enrolled in the institution; available facilities, instructional materials, equipment, and personnel; and a location where there was a growing labor market demand.

PROGRAM DESIGNS

Since this handbook is about Bilingual Vocational Education, only program designs in BVE will be discussed in detail. However, it is also important to describe the alternatives to this approach.

Alternative Programs

There are roughly three alternatives to BVE.

1. *Monolingual Vocational Education*. Also called the "sink or swim approach," this type of program is unfortunately probably the one in which most adult and many secondary vocational students find themselves—a regular vocational program which provides no special services to limited-English-proficient students.

2. *VESL or Prevocational ESL*. Most VESL (Vocational English as a second language) and prevocational ESL classes stress basic life skills, job survival skills (prevocational), and the vocabulary and grammar necessary for a specific occupation (VESL). Since language is the primary focus, prevocational and vocational ESL classes, although certainly worthwhile, would not provide enough vocational information and practice for the LEP student to successfully enter the job market in one of the vocational areas.

3. *ESL, Prevocational ESL, or VESL along with Monolingual Vocational Education*. This alternative, probably the most effective of the three non-bilingual models, includes both English instruction (general, prevocational, or vocational) in addition to regular vocational training. The major drawback to this type of program is that severely limited speakers of English will often not advance quickly enough in ESL to be able to adequately comprehend the instruction in the vocational class. The obvious alternative here would be for LEP students to study English before beginning vocational training. Although this practice is carried out in many places, it is often frustrating for students who desperately seek an occupation to be held back, in addition to being legally questionable (see *Lau vs. Nichols*, Chapter 2).

Bilingual Vocational Program Designs

Several expressions are used in the literature to describe instructional program designs in Bilingual Vocational Education. We have chosen the terminology which is most commonly used in other non-vocationally-oriented bilingual programs. The purpose of this is to acquaint the vocational instructor who may venture into bilingual education literature with a terminology that will be recognizable.

Although as many as 20 distinct program designs have been identified by several authors, this handbook will discuss only some of the most commonly utilized program designs and those which are most applicable to a vocational education setting. In order for the vocational instructor to choose the most appropriate model, the following factors should be considered:

- the linguistic needs of the students
- the occupational needs of the students
- the number of students with special needs
- the number of students with similar language backgrounds
- the philosophies and goals of the administration
- the resources available
- the law

Team Teaching

This program consists of two vocational instructors, one English-speaking, the other bilingual. English-speaking and LEP students can receive instruction together in alternating languages, or they can be grouped by language background and receive instruction separately in their native languages. The latter method is more common.

This design is mostly used when there are enough LEP students with a common language background to warrant a special professional instructor. It is also employed when developing second language proficiency for English-speaking students is among the program goals. The latter situation is quite rare, however, in secondary and adult educational programs.

Self-Contained

This program is designed for vocational classes with fewer numbers of LEP students than English-speaking students. This design is also more usable for classes with LEP students with different language backgrounds.

There are several ways to employ the self-contained design. Among them are:

1. Concurrent approach
2. Teacher and bilingual aide approach
3. Peer tutor/translator approach

THE CONCURRENT APPROACH. This approach requires the vocational instructor to use two (or more) languages. In simple terms, it is the practice of switching from one language to another. Ideally, in this approach, a bilingual vocational instructor would switch languages to clarify the instruction. The vocational instructor who knows little of the LEP students' native language can *at least* learn to provide positive reinforcement in the other language. This limited, but worthwhile, use of the students' native language would then be supported by one of the following two approaches.

TEACHER AND BILINGUAL AIDE APPROACH. In this approach, an English-speaking vocational instructor is assisted by a paid or volunteer paraprofessional or community member who mainly helps to assess the LEP students' language and occupational needs, plan instruction, clarify instruction in the LEP students' native language, translate instructional materials, work with LEP students individually, and evaluate student progress.

PEER TUTOR TRANSLATOR APPROACH. This approach is similar to the above approach, except that the "aide" is another student and only serves to clarify instruction. A peer should *not* be used to plan instruction or to evaluate other students.

Pull-Out/Resource Center

The third program design requires the LEP students to physically leave the classroom or vocational instructional area to receive special bilingual instructional services and/or V/ESL instruction. In an ideal bilingual vocational education program, all LEP students would receive ESL or VESL instruction outside of their vocational classes. The use of this program design for *bilingual* instruction usually occurs when either there are too few LEP students in each class to warrant in-class bilingual instruction or when there are too many language backgrounds in each class to make bilingual instruction practical. In the latter case, native language tutors from different language backgrounds could assemble at one common resource center within the school or vocational center. It is important to note that the use of the term "pull-out" here refers to the use of special outside (of the classroom) facilities for special instructional services. These services should, ideally, be provided at a time different from when the regular vocational training takes place so that the student does not have to miss any of the instruction taking place in the regular vocational class.

THE "IDEAL" PROGRAM DESIGN

Although vocational programs will differ in their needs, philosophies, and certainly in their available resources, most experts in Bilingual Vocational Education would probably agree that the most effective vocational program for limited-English-proficient students would include a separate VESL class where occupation-specific English is learned, along with (self-contained) bilingual vocational training. Some experts have gone so far as to say that it is a waste of time to wait until students learn English through general ESL before allowing them to begin vocational training. In an ideal bilingual vocational training program, the ESL and vocational instructors collaborate with one another so that the ESL teacher can prepare the students for the occupation-specific vocabulary and grammar needed to survive in the vocational setting while the vocational instructors are modifying their techniques and strategies to better accommodate the LEP students. The Troike et al. study points out that the vocational instructor should be scheduled to participate in the ESL component and the ESL instructor should be scheduled to participate in the vocational component. In this way the ESL instructor will become more adept at presenting job-related English, and the vocational instructor will become familiar with ESL teaching techniques. Troike et al. support this in their study and identify several program features which insure success in bilingual vocational training. These features are summarized below.

1. Careful and in-depth planning.
2. Careful needs assessment of job market needs of the community and language needs of the prospective trainees.
3. A staff that is bilingual and committed to the success of the trainees.
4. In-service training for staff.
5. Personal and professional counseling services for the trainees.
6. Full-time staff.
7. Cross-cultural training in U.S. customs, especially in American employment practices for trainees.
8. Bilingual vocational instruction closely coordinated with the ESL instruction.

9. ESL instruction that is job-related and closely coordinated with the vocational instruction.
10. An advisory committee with representatives from the minority community, the vocational skills area, and the employment sector.
11. Follow-up services for trainees who have completed the program and joined the work force.

Instructors in many bilingual vocational training programs report that given this ideal combination of services (BVT and VESL), LEP students usually complete the vocational training program in the same amount of time as their native English-speaking peers.

PRACTICE

What program model would be most appropriate for your class (or a hypothetical class described by the instructor)?

Provide a rationale for your decision based on:

1. the linguistic make-up of the class
2. the philosophies of the administration
3. the resources available.

CHAPTER V
Bilingual Vocational Course Construction

Vocational educators employ a wide variety of techniques in determining what to teach their students. Regardless of the technique employed, however, all vocational education must be based upon the actual job requirements of business and industry. One of the most widely used approaches to determining actual job requirements is called *occupational analysis* or *task analysis*. The effective use of task analysis to develop vocational education course outlines ascertains course offerings based on the actual job requirements of the occupation being taught.

The technique used to determine what to teach bilingual vocational education students is essentially the same as is used to determine what to teach any vocational education students. The reason that the same technique can be used is that in planning *any* vocational education program it is essential that (1) actual job requirements be used as the basis for deriving course content, and (2) the unique characteristics of the students become the basis for instructional decision making. Another way of stating this concept is that vocational instruction must be based on actual current job requirements, but instructional strategies to teach those job requirements will vary depending upon the skills, attitudes, and knowledge that students bring with them when they enter the program. Therefore, like every other vocational education instructor, the vocational instructor of LEP students must be skilled in analyzing occupations to determine the actual current job requirements. This chapter will present a review of 11 major steps involved in constructing a course for a vocational education program.

1. DETERMINING THE JOB TITLE

Use the *Dictionary of Occupational Titles (DOT)* to identify the exact titles for the occupation to be analyzed.

2. WRITING A JOB DESCRIPTION

The job description is a general statement, a paragraph or two long, that defines the scope of the course by describing all of the kinds of duties a specific worker performs. It should include the various duties involved and list any special or unusual conditions under which the duties are carried out (e.g., works out-of-doors, long periods of standing, heavy lifting, special clothing, and so forth).

The job description just hits the "high spots," but it promotes a job-oriented point of view that guides the selection of only the most relevant subject matter and learning activities for the course. The job description also helps to communicate to students, community members, and other educators the purpose of the course. The procedure for writing a job description is flexible. However, the experienced vocational teacher will use the following steps:

1. Read the *DOT* for a broad overview of the job and writing style.
2. Recall duties and conditions from personal occupational experiences.
3. Talk with workers actually performing the job being analyzed.
4. Read examples of job descriptions written by others who teach the occupation being analyzed.
5. Have a draft copy of the job description critiqued by a knowledgeable peer.*
6. Write the job description in final form.

3. DEVELOPING A TASK LISTING

Many occupations require more skills and knowledge than can possibly be fitted into the time available in a particular course. The instructor in such a situation must make certain decisions. Which skills are absolutely essential for the entry level job? Which skills are required a little later on the job? Which skills are expected only of the experienced worker? The answers to these questions help the instructor make informed instructional decisions.

Duties and Tasks

When analyzing complex occupations such as automobile mechanic, cosmetologist, and nurse, it becomes immediately apparent that workers in each of these occupations perform numerous tasks and that certain tasks are logically related to each other. It makes sense for the course developer—the instructor—to place these related tasks into a logical grouping. One method of placing tasks in logical groups is to begin an occupational analysis by first identifying the major *duties* of that occupation, then list each task under the related duty.

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* When you write any professional papers, it is sound practice to have a peer read your rough drafts to learn (1) whether you have covered the subject adequately, and (2) whether your words are conveying the ideas you intend them to. It is all too easy for good ideas to escape or change while they are being transferred from your mind to paper. Therefore, part of writing a job description (or any other professional writing) is having another professional critique your work.

A duty is one of the distinct major activities or units involved in the work performed in an occupation. For example, analysis of the aircraft mechanic's occupation might reveal the following duties: diagnosing, servicing, repairing, replacing, testing, receiving, releasing, and billing. Each of these duties is composed of a set of related tasks. After the duties have been listed, each of the tasks is identified and placed under the appropriate duty.

A task is a unit of work comprised of a related set of behaviors (steps) that make up a particular portion of a job. For example, one of a cosmetologist's tasks is to give a shampoo. All of the steps involved in giving a shampoo serve to make up the complete task. Part of a waiter's job is to take the customer's order. Taking a customer's order, then, is one of the tasks that makes up the waiter's job. Typing a business letter is one of the tasks of the clerk-typist's job.

Example of a Duty and Related Tasks

Occupation: Auto Body Repair
  Duty: Body and Frame Alignment
  Tasks:

1. Inspects Body and Frame and Measures Alignment
2. Straightens, Repairs, and Aligns Body and Frame of Vehicle
3. Straightens Deformed Auto Body Sheet Metal
4. Removes and Installs Weld-In Panels
5. Aligns Hood and Deck Panels
6. Removes and Installs Doors
7. Removes and Installs Fenders
8. Removes and Replaces Bumpers
9. Replaces Fiberglass Body Panels
10. Repairs Fiberglass Bodies

Some jobs such as key punch operator, retail store cashier, and window washer are ordinarily referred to as single-duty occupations. When analyzing a single duty occupation, a task listing is sufficient. However, when analyzing a multi-duty occupation, it is best to begin by first identifying the major duties of that occupation, then the tasks related to each duty.

Reviewing the job description and the instructor's own personal occupational experience is a reasonable place to begin developing a task listing. However, for accuracy and up-to-date information, it is essential to observe and talk with workers who are actually performing the job being analyzed.

A task listing is a list of all of the tasks workers in the occupation being analyzed perform on the job. The task listing also often includes who performs the task (entry level worker? experienced worker?) and how often it is performed. Some vocational educators also note the tools and materials used while the tasks are being performed. Therefore, these educators have a list of tools and equipment that must be obtained for the instructional program. However, the major reason for developing the task listing is to assure that what we teach is what students need to learn to succeed on the job.

4. DETAILING EACH TASK

Detailing means listing each step required to perform a task. In a V-TECS catalog the steps in a task are called the *Performance Guide*. Regardless of the term used to identify the process, writing on paper the steps involved in performing each task is essential to sound vocational instruction. The purpose of detailing is to be certain that every aspect of each task is included in the instruction.

One important aspect of every task is the language associated with safe and successful completion of the task. Therefore, instructors of LEP vocational students find it valuable to identify the special vocabulary associated with each task. In addition to technical terms and phrases, these instructors note the types of questions and directions workers respond to when performing each task. This "language of the trade" is an important part of the preparation of all vocational education students; for LEP students, acquiring the language of the trade is a job survival skill.

The instructor of LEP vocational students uses the language of the trade in at least two ways. First, the instructor includes these terms, phrases, questions, and directions in his/her instructional plan. Second, when appropriate, the list of essential terms, phrases, questions, and directions is shared and discussed with the ESL teacher. Cooperation between the vocational instructor and the ESL teacher is essential to ascertain that ESL instruction is in fact job related.

When detailing a task, experienced vocational instructors also identify the major type of performance involved in each step. This enables the instructor to ascertain that students will practice the kinds of performances required in the task. For example, if speaking to the customer is a step in the task, the instructor notes speech as the performance and makes certain that when learning activities are selected, students have the opportunity to practice the exact performance required on the job—speaking to the customer.

5. DESCRIBING PROSPECTIVE STUDENTS

Occupational analysis provides an essential data base for designing your course. A vocational education course must be based on a thorough analysis of tasks actually performed on the job. However, this data base alone is not sufficient to design an efficient and effective course—one which must meet the needs of the students who are to benefit from it. Therefore, the prospective students are an important factor in course planning.

To illustrate this point, consider the following example of two instructors of automobile mechanics in the same school.

Instructor A begins with English-speaking and fully bilingual students who can and do enjoy reading about the subject, have already mastered the use of basic hand tools, and enjoy working on cars as a hobby. The LEP students who enter Instructor B's course have never worked with mechanical things and cannot read English at the level the textbook is written in. However, they believe they might enjoy becoming automobile mechanics.

It is quite obvious that Instructor A and Instructor B must provide different learning experiences to their students even though they are attempting to teach the same vocational subject to students in the same grade level and school. Students enter each course with differing skills, knowledge, and attitudes in relationship to the course objectives. These individual differences are particularly critical in the case of LEP students. Each instructor must determine what the students bring with them upon entering the course and use this information to determine where instruction should begin. Stated another way, *the content of the course is the difference between what the student is already able to do and the course objectives.*

We are concerned here with rather general information: The *assumptions* an instructor has regarding what students are already able to do. These assumptions, *when verified*, play an important role in determining where instruction begins.

When Instructor B in the example above assigns the reading of certain pages in the text as the next learning experience, it is a little late to learn that the students cannot read at the level the textbook was written. Instructor B had *assumed* because the students were in a certain grade that they could read a book written at that grade level. The situation is precisely the same when the instructor assumes that students can read a ruler (or scale) accurately, identify and/or use common tools, solve problems requiring simple arithmetic, and so forth. It is important for the instructor to list the assumptions he/she has regarding the skills, attitude, and knowledge students will have when they enter the course. This written description of the instructor's assumptions is called a *description of the prospective students*, and it is *not* an accurate "scientific" report on measured traits and characteristics of students.

The description of the prospective students presents information in each of the following topic areas that the instructor assumes to be descriptive of the students who will enroll in the course that is being planned.

Suggested Topic Areas for Describing Prospective Students

Physical characteristics

Age, physical strength, dexterity, handicaps, and any similar pertinent characteristics.

Motivation

Why are they enrolling in this course?
Is the occupation they have selected held in high esteem by others from the students' cultural background?
What are some of their out-of-school interests?

Education

(Do *not* confuse this with number of years spent in school!)
What is their native language?
How well can they understand and speak English?
Can they read in their native language?
Can they read in English?
What kind of mathematical operations can they perform?
What tools can they identify?
What tools can they use correctly?
What operations appropriate to the occupation have they already mastered?

6. DEVELOPING PERFORMANCE OBJECTIVES

Performance objectives are statements that describe the desired student *performance* (behavior), the *conditions* under which the performance must take place, and the *criterion* that will be used to evaluate the appropriateness of the student's performance. A complete performance objective always contains those three parts—performance statement, conditions statement, and criterion statement—and must be written in concrete terms.

The word *concrete* refers to the selection of verbs that are valuable because they tell the instructor how he/she can observe accomplishment of an objective by a student, and gives the student definite directions to follow in order to develop the skill called for in the objective. Suppose, for example, that the performance objective for the chapter you are now reading contained the following performance statement: "Upon completion of the reading of this chapter, you will understand occupational analysis." This statement is *not* concrete. Understanding occupational analysis is important, and we certainly do want you to understand this important process. However, the term *understand* is vague; it means different things to different people. Understanding is not observable, nor easily measurable, nor concrete to both students and instructors. Performance objectives must convey the same meaning to everyone who reads them.

Performance objectives should *not* contain terms that are vague, unclear, or open to question. Terms such as *know, understand, appreciate, comprehend, master, realize, grasp,* and so forth should be avoided in performance objectives.

The verb in a performance objective clearly indicates what the student will be able to do upon successful completion of the learning experiences. Concrete terms such as *write, construct, operate, list, describe, solve, define, adjust,* and so forth are used in writing performance objectives. The verbs used in performance objectives mean the same thing to different people; they are not vague or open to question.

Performance objectives are important because they tell the student precisely what must be done to demonstrate mastery of a particular objective; performance objectives guide student learning. Performance objectives also provide the instructor with a guideline for systematic development of instruction and for justification of procedures and content of the program to administrators, the school board, students, parents, industry, and the tax-paying public. In brief, performance objectives clarify instructional intent and are written in a form which clearly states that intent.

Task Listing vs. Performance Objectives

It might seem that our task listing (what workers do on the job) should automatically become performance objectives (what students should be like at the end of the course). Such is not the case. There is a difference between what the worker does on the job and what will be included as performance objectives for the course.

A. Certain skills might be unrealistic to teach in school and might be better taught on the job, e.g., intricate procedures that vary from company to company, or any skill that is very difficult to teach and seldom used on the job. (This is a critical area of professional judgment on the part of the vocational instructor which should be validated by the craft advisory committee.)

B. There are probably other desirable goals not found in a task listing that should be converted to performance objectives. The school and the department probably have goals that should be incorporated into your program as performance objectives. Such skills as completing an employment application form and participating in a successful employment interview must also become performance objectives.

C. Performance objectives do not include skills students possess prior to enrolling in the course. It would be pointless to list as objectives the skills that students possess prior to instruction, even though these skills are required on the job.

It is, of course, impossible to identify skills that students already possess until they are enrolled in the course and tested. The point being made here is that performance objectives are *not* written in granite and held up for all time. The first set of objectives the instructor develops will remain intact only until the time the instructor meets the first class of students. For this reason, many instructors prefer to initially write only the performance statements (*not* complete performance objectives). These instructors add the condition and criterion statements *after* meeting the students and selecting learning experiences.

7. DEVELOPING A COURSE PRETEST

The course pretest is the method of determining whether the students, as they actually are, match the instructor's assumptions as stated in the description of the prospective students. A course pretest, *in some cases*, also serves to identify students who possess the required prerequisites for admission to the course. However, since most vocational courses have an open admissions policy, the primary use of the course pretest is to gather information that helps the instructor individualize instruction rather than determine who should be admitted to a course.

The course pretest is important because it helps the instructor identify what students actually can do prior to instruction, and identifies where instruction should begin. For example, if Instructor B mentioned in the "Description of Prospective Students" said that students would be able to read and interpret a scale, pretesting will determine whether they can or cannot read and interpret a scale. If, however, the students cannot read and interpret a scale, and that skill is important in the occupation being taught, that skill must become an objective. Similarly, where the instructor assumes that students can read the standard textbook, but pretesting reveals that students do not comprehend what they read in the textbook, an instructional decision must be made. Reading the standard text for the course must become an objective of the course, or a different method of imparting information must be substituted for the standard text.

The keynote of this discussion is *reality*. Vocational education is valid only to the degree that it meets the real needs of students who are preparing for real jobs. Occupational analysis is the method of determining valid job requirements. The course pretest is the method of determining what skills students actually have prior to instruction. When the vocational instructor has the information provided by occupational analysis and course pretesting, instructional decisions can then be made.

To prepare a course pretest, the instructor answers the question: What would students have to do to *demonstrate* that they have the skills I assume that they have? The instructor then develops test items that will allow the students to *demonstrate* the assumptions that were listed in the Description of Prospective Students.

For example, if the instructor assumed that the students could use certain hand tools correctly, the instructor would develop an item that had them *use* small hand tools. When pretesting LEP students, it would be essential that the language barrier not prevent the instructor from assessing the students' vocational skills. That is, if an LEP student scored poorly on a written or oral pretest, the instructor would not know whether the student scored poorly because of not understanding the language, not having the vocational skills, or both. The obvious solution would be to provide the LEP students with pretests in the native language, whether it be verbally or in writing.

If the instructor assumed that the students could read the test (or other written material), an appropriate reading assessment should be carried out. A simple method used by many vocational instructors is the cloze technique (see Appendix A). If the instructor assumed that the students understood spoken English, an appropriate listening comprehension assessment should be carried out. A simple technique used by many vocational instructors is to conduct an informal private interview with each LEP student. If there is an ESL instructor, guidance counselor, or others professionally trained in language assessment, more formal procedures can be employed for assessing language proficiency.

In certain occupational areas, students are *required* to possess certain prerequisites in order to be admitted to the course. Determining whether students possess these prerequisites could also be a function of the pretest. It is important that only absolutely essential prerequisites be used as entrance requirements for any vocational course. Again, it would be essential to test LEP students in their native language.

You may wish to consult a Tests and Measurements textbook; however, following the directions given above will provide satisfactory results as you develop a course pretest. Ask colleagues to check over your pretest and seek help from bilingual individuals in translating it.

8. SELECTING APPROPRIATE METHODS OF EVALUATION

Appropriate evaluation simply means requiring students to perform what the objective asks them to perform, under conditions specified in the objective. The selection of appropriate methods of evaluation requires the instructor to identify the type of student performances called for in the objective, and requires the student to demonstrate that type of performance. For example, if the objective calls for the student to "change a tire," appropriate evaluation would require the student to actually change a tire. Asking a student to *tell* how to change a tire or to *list* the steps in changing a tire would *not* be appropriate methods of evaluation because the performance in the evaluations differs from the type of performance called for in the objective.

When an objective is written with the three basic parts (performance, conditions, and criteria), it is a simple matter to convert the objective into specific directions to the learner for the purpose of measuring successful achievement of the objective. The purpose of this measurement is to determine how well the learner's performance coincides with the performance described in the performance objective. Thus, learners are *not* compared to other learners, but against the predefined criteria. A test by this means is called a *criterion-referenced measure*, and the object is learning, not failing. Learners are given the opportunity to complete any learning experiences that are necessary in preparation for testing until they are able to perform at an acceptable level. Acceptable performance is required before proceeding to the next objective.

In the case of LEP students, directions should be given in their native language. Teachers should make an effort to provide translations of the statements of objectives and evaluation in appropriate native language dialects. Since evaluation "responses" are often demonstrations, the LEP student should perform as well as the others.

(For a more complete discussion of test construction techniques, see Appendix B (Test Construction) of this handbook.)

Examples of Appropriate Evaluation

Example One

For English-Speaking Students

Performance Objective: Given a group of 25 unpaid invoices and statement forms, prepare a monthly statement for each customer (in English). Each statement must be 100% accurate.

Appropriate Evaluation: Using the material provided by your instructor, prepare monthly statements for 25 customers (in English). (Note that it was not necessary to state the criterion—100% accuracy—in the criterion-referenced measure because the criterion was established in the performance objective.)

For Spanish-Speaking Students

Objetivo de Ejecución: Dado un grupo de 25 facturas sin pagar y las formas que muestran el estado de la cuenta, prepare una cuenta mensual para cada cliente (en inglés). Cada factura debe ser 100% correcta.

Evaluación: Usando el material suministrado por su profesor, prepare cuentas mensuales para 25 clientes (en inglés).

For Haitian Creole-Speaking Students

Objéktif: Yap ba ou yon lo 25 dévi san péyé ak kik fòm pou rapò, préparé yon rapò pa moua pou chak kliyan. Fòk rapò yo ékri (an Anglè). Chak rapò doué 100 Kòrèk.

Evaluasion: Sèvi ak matériè̀l instruktè—a préparé rapò chak moua yo pou 20 kliyan yo. Fòk rapò yo ékri an Anglè.

Example Two

Performance Objective: Provided a patient in a hospital bed and the necessary supplies, give the patient a back rub. The procedure will be evaluated in accordance with a performance checklist. All items must be rated "acceptable" in the judgment of your resource person.

Appropriate Evaluation: Give the patient a back rub using all of the procedures on the performance checklist.

Objetivo de Ejecución: Dado un paciente hospitalizado y el equipo necesario, dé al paciente un masaje en la espalda. El procedimiento será evaluado de acuerdo con una lista de actividades. Todas las actividades deben ser evaluadas como "aceptable" por el supervisor.

Evaluación: Dé al paciente un masaje en la espalda usando los procedimientos en la lista de actividades.

Objéktif: Ou jouin-n yon malad kouché lopital ak tout zouti, ou bézouin bay malad-la yon masaj nan do. Yo ap méziré travay ou daprè yon lis ki maké sa ou doué fè. Chak sa ou té fèt pou konsidéré "aksèptab" daprè jijman éspesialis ki travay avèk-ou la.

Evaluasion: Bay malad la yon masaj nan do, sèvi akmétod yo ba ou nan lis ki maké sa pou ou fè yo.

Selecting appropriate methods of evaluation in a multicultural competency-based vocational education course is almost as easy as the two examples given above make it appear to be. All the instructor must do is determine a method for requiring students to perform what the objective asks them to perform, under conditions specified in the objectives.

In a well-planned multicultural competency-based vocational education course, the criterion-referenced measures are specified in the objectives in the appropriate languages. The instructor who has clearly written performance objectives has already identified the criterion-referenced measures. All that remains for this instructor is to write specific directions to students asking them to do what the objectives ask them to do, under the same conditions described in the objectives, again, if necessary, in the appropriate languages.

9. SELECTING APPROPRIATE TEACHING TECHNIQUES

Teaching techniques are selected to enable the student to master an objective. Lecture, demonstration-performance, discussion, programmed instruction, instruction sheets, simulation, and oral questioning are just some of the types of learning activities experienced by vocational education students (see Chapter 6).

The vocational instructor is faced with a multitude of possible learning experiences that might reasonably be made available to students. To compound the situation, in most vocational education programs each student might be working on a different part of the same objective, or a completely different objective. Thus, when we refer to teaching techniques we are *not* necessarily referring to something that the teacher does with the entire class. Teaching techniques refer to the methods the teacher selects to provide appropriate learning experiences, whether to an individual, to a small group, or to an entire class of students. This section attempts to answer the question: "How does the instructor select the most appropriate teaching technique from all of the possible activities that might be made available to students?

Guidelines for Selecting Appropriate Teaching Techniques

No one learning activity is best for all situations, and generally a combination of different activities is necessary to enable a student to master a particular objective. The experienced vocational education instructor uses the following five factors to determine the most appropriate learning experiences:

1. The objectives to be mastered
2. The student population

3. Principles of learning
4. Available resources
   (time, cost, training aids, material, etc.)
5. The teacher's ultimate goal

Let us now consider each of these factors that influence the selection of appropriate learning experiences.

THE OBJECTIVES TO BE MASTERED. The performance objective has great impact on the selection of learning activities because it specifies the precise performance that is desired at the end of training. What type of performance is expected of the student, and under what conditions? If the objective calls for the student to perform a psychomotor skill, it might be useful for the student to participate in a lecture/demonstration, view audiovisuals, and read about the process. However, the final learning experience must always require the student to practice the precise skill called for in the objective.

THE STUDENT POPULATION. As stated earlier in this chapter, students enter a course with differing skills, knowledge, and attitudes in relationship to the course objectives. With LEP students the range of individual differences is even broader. Each instructor must determine what students bring with them upon entering the course and use this information in selecting appropriate learning activities. A student with a low reading level in English will not progress far in most programmed textbooks. However, the same programmed information might be effectively used when recorded on an audio tape cassette or translated into the students' native language. A student who is highly motivated to learn might need different activities than the less highly motivated student, or perhaps just a different sequence of the same activities is required.

The concept of individual differences among students causes the experienced instructor to select, design, modify, or create a variety of learning activities for each objective. Students are then able to experience those learning activities appropriate to their present level of skill, knowledge, motivation, language abilities, and cultural backgrounds.

The experienced instructor asks the questions: Who will I be teaching? What is their background and educational level? What motivates them to enroll in this course? The answers to these questions provide information that is useful in pre-course planning of learning experiences. Later, actual one-to-one experience with students plus formal and informal evaluation will provide information required to individualize instruction.

(Chapter 6 provides more detailed information about the appropriateness of several teaching techniques for LEP students.)

PRINCIPLES OF LEARNING. In every step of instructional decision making, the experienced vocational instructor keeps the following generally accepted principles of learning in mind:

a. *Readiness*

Learning is most effective when the student is ready to learn. The student should be motivated, attentive, and have a felt need for learning. This principle encourages the instructor to share clearly defined objectives with students and to be certain that each student understands the purpose of each learning activity. It is important for LEP students to be provided this information along with the other students, in their native language, if necessary.

b. *Active Student Participation*

People learn by doing. Generally, the more actively the student participates in the learning process, the more the student learns. Keep in mind that *we learn that which we do* (and not something else). The final learning experience for every performance objective must be student practice of the exact performance called for in the objective. This principle applies even more to LEP students who may have difficulty understanding lectures, but who certainly learn from demonstrations and from doing.

c. *Feedback*

Information that the student receives about how well he/she is doing is called feedback. Students should have continuous feedback on their progress so they can adjust the learning process as necessary. Generally, feedback should be frequent and immediate for each challenging segment of an objective. It would not be difficult for any vocational instructor to learn a few phrases such as "Well done" or "Try it again," in the students' native language(s).

The instructor also receives feedback on student progress. This feedback shows how well the objectives are being achieved and enables the instructor to adjust the learning environment as necessary. Feedback, therefore, is useful to both student and instructor.

d. *Repetition and Practice*

To a point, repetition aids in learning retention. That point is reached when fatigue and boredom set in. Making practice more realistic, and altering less essential details each time, minimizes the possibility of boredom.

e. *Motivation*

Motivation is the most important factor in the learning process. Students must be motivated in order to learn. And while it is true that motivation is something generated within the student, the instructor can aid or trigger the process by using appropriate learning experiences. For the less motivated student, more activities that gain and maintain attention will probably be required. The range of motivation for LEP students varies as much as with other students. For the most part, the newly arrived students will be extremely motivated to learn an occupation and get a job, unless they are being forced to take instruction because of difficulties validating their credentials. Students who have been in the U.S. for a long time, but who for a variety of reasons have not been successful in school or in getting a job, may have motivational difficulties related to a low self-concept.

f. *Planned Pacing*

Planned pacing is closely related to motivation. If the instructor forces every student to proceed at a common rate, some students will be lost and some will be bored. Therefore, the instructor must consider individual differences in student performance rates when making instructional decisions.

AVAILABLE RESOURCES. Open-entry/open-exit programs permit students to come and go based upon learning needs. However, in most courses today, students generally are enrolled for a predetermined period of time. It is the vocational instructor's responsibility to help the student prepare for employment in that period of time. Thus, time is a factor influencing instructional decision-making. Certain skills must be mastered, regardless of time, if the student is to be employable. However, some skills that are difficult to learn and not often used might be better left to on-the-job-training. In essence, the instructor attempts to make most effective use of the available instructional time.

Cost is another consideration. When the instructor determines that certain equipment would be most effective in a given situation, the question remains, can the program afford it? While the basic criterion for selecting learning experiences is instructional effectiveness, learning experiences must also be weighed against cost.

THE TEACHER'S ULTIMATE GOAL. One vocational teacher's goal might be to help students develop particular psychomotor skills. Another teacher of the same subject, given those same students, might be concerned with the cognitive, affective, moral, social, and emotional, as well as the psychomotor, development, i.e., the total behavioral development, of students. A teacher's ultimate goal is often quite clearly reflected in his/her teaching style.

Teaching style refers to the type of teacher-student involvement in the learning process. Teaching styles range from very *direct*, where the teacher makes all of the decisions, on through a variety of increasingly *indirect* styles, where the student is more involved in the decision making process.

It is quite possible to have a teaching style that is satisfying to both students and teacher and yet have student growth minimized simply because of that style. For example, when the teacher uses a very direct style and tightly controls the students' activity, the student knows exactly what to do every step along the way. The end product of the students' activities is exactly what is expected by the teacher. The student receives the reward of teacher approval. The teacher is satisfied because the student "has learned." This is a very comfortable situation for both student and teacher. The concern is that continued use of this teaching style makes the student *dependent* upon the teacher.

If a teacher's objective is simply to help students develop psychomotor skills, there would appear to be no problem with the fact that students become overly dependent upon the teacher. However, vocational teachers are concerned about more than skill development. They are concerned with the total human development of their students. They understand that although a very direct teaching style is the quickest and easiest way to teach a specific skill, the reliance on external reinforcement can restrict student growth in other important areas of human development.

The successful teacher understands the limitations as well as the benefits of external rewards. This teacher understands that beginning students will need extra direction, encouragement, support, and reward, and that these needs will exist much longer for students with self-concept/self-confidence problems. Equally important, this teacher realizes that his/her own conscious decisions about teaching style will greatly influence the degree to which these students will need to rely on external rewards.

Summary of Guidelines For Selecting Appropriate Teaching Techniques

Keeping the principles of learning in mind at each step, here is what must be done when selecting learning experiences.

1. Determine the specific type of desired student performance. and the conditions under which that performance must take place.

2. List the relevant kinds of learning experiences that would ultimately enable students to practice the desired performance under the specified conditions.

3. Select from all of the relevant learning experiences those that are most practical considering the student population and available resources.

4. Sequence the recommended learning experiences in a logical order, always concluding with *practice* of the desired performance as the final learning experience.*

5. When following the above suggestions, it is important that you keep in mind your ultimate objective—the total human development of students.

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* Note: When the instructor of an individualized, competency-based vocational education program lists a number of different recommended learning experiences, it is understood that students will only engage in those learning experiences that are appropriate for their learning needs—not necessarily all of the listed learning experiences.

10. ORGANIZING A COURSE OUTLINE

Content sequencing is the process of selecting the order in which the instructional units will be presented to the students. The sequence in which events occur on the job is not necessarily the best order in which to present information to students. A number of alternative methods can be used to arrange units into a logical instructional order. However, there is no general agreement regarding which method of content sequencing is superior. Major concerns are that units should be sequenced so that even students who do not complete the course will develop some saleable skills, and that learning experiences should be sequenced as much as possible to maintain student interest. Here are some suggestions:

Most frequently used tasks. When developing your task listing, you noted the amount of relative time a worker devotes to performing each task. (An alternative method is to record the number of times a given task is performed.) This process helped identify tasks that are frequently used and essential to success on the job. This information makes it possible to sequence course content from the most often used to the least often used skills and knowledge. Many vocational course developers prefer to use this rationale in sequencing course content to assure that even those students who do not complete the entire course will acquire some saleable skills.

Psychological sequencing implies that the interests of the students, i.e., what motivated the student to select the course, should be an important influence in determining the order in which instructional units will be presented. For example, students who want to learn how to repair televisions might well be less than enthusiastic when the first unit of instruction in their newly selected course is devoted exclusively to electron theory and solving Ohm's Law problems. There is no question of the need for, and value of, electron theory and solving Ohm's Law problems in the instructional program. The question here is, should these topics be the introduction to the course? Or is it possible that they might fit more appropriately later in the course after the students have been "turned-on" by learning experiences that are more meaningful to them? Interest sequencing suggests the need to intersperse units with high student appeal among the other units as much as possible. A unit with high student interest would be an excellent introduction to a course.

Logical sequencing is simply determining which units *must* be taught before others. If logic dictates that one skill must be built upon another, then there is no choice as to which skill must be presented first. For example, a cosmetologist must sanitize his/her hands before manually massaging the scalp of a patron. Therefore, the cosmetology instructor would teach how to sanitize hands before teaching how to massage scalp manually. However, a word of caution is necessary here. Instructors quite often sequence units in the same way they were taught when they were students. Tradition rather than logic is often the basis for such sequencing. A student does not have to understand Ohm's Law before being able to replace a light fixture. It is quite possible to clean and adjust spark plugs without being able to explain the principles of combustion. If, and only if, a topic *must* be built upon another, then the sequencing decision is made for the instructor. Otherwise, factors such as frequency of performance on-the-job, student interests, and potentially saleable skills for drop-outs should influence your sequencing decisions.

Use the concepts of frequency sequencing, psychological sequencing, and logical sequencing when considering the order in which instructional units will be presented to students.

It is especially important to keep in mind that a course outline is never in completely final form. As the instructor follows the instructional plan (the course outline), the need for revision will become obvious. Each group of new students, each change in the occupation, each improvement in instructional technology and resources causes the successful vocational education instructor to review and improve the initial course outline.

The process of occupational analysis helps the instructor develop a course outline based on the actual current industry job requirements, the student population, principles of learning, and available resources. It is far easier to defend such a course outline than one based upon tradition alone. However, the value of the course outline will be determined by the instructor's willingness to review it critically and modify it based on the concepts of occupational analysis.

11. DEVELOP LESSON PLANS

If students are to learn effectively, lesson content must be conveyed clearly and accurately. Few presentations are meaningful if not properly prepared. Therefore, the first step in teaching any lesson is lesson planning. The instructor must organize his/her thoughts and materials and systematically plan presentations before trying to communicate ideas to others.

The purpose of this section is to introduce one successful method of developing a lesson plan. The method that will be presented step-by-step here is just one of the many acceptable methods of lesson plan development. However, successful lessons are always planned using a thought process similar to the one presented here.

CAUTION: A wide variety of lesson plan formats exist. Experienced teachers and administrators often have strong preferences for a particular lesson plan format. Some schools and school districts require the use of a particular lesson plan form. One benefit of a lesson plan form is that there is less tendency for the teacher to overlook an essential component of the lesson when that component is listed on the form. However, printed forms have a specific amount of space allotted to each component of the lesson regardless of the amount of space required by the teacher in planning a particular lesson. Thus, prepared forms sometimes encourage teachers to "fill in the blanks" rather than engage in imaginative lesson plan development. Therefore, *we suggest that lesson plans be typed on plain paper rather than on prepared lesson plan forms.* Once you master the process, you will be able to apply it easily to any lesson plan form that you prefer or are required to use.

Lesson Plans in Individualized Instruction

You may already know that your teaching assignment will place you in an individualized, self-paced course. If so, you may question the value this section has to you. We believe that any professional educator, regardless of the type of instruction in his/her course assignment, should be able to develop a good lesson plan from start to finish. The essential components of lesson planning apply to one-to-one individualized instruction as well as to group instruction. The value of lesson planning to the instructor is centered around his/her use of the educational principles and methodology used in the lesson planning process. The instructor's mastery of and ability to use these principles and procedures will make a more effective instructor in any teaching situation.

A lesson plan is simply a flexible guide for teaching which contains a list of objectives, teaching steps, and other instructions and/or information needed by the instructor for effective attainment of the objectives. A lesson plan is individualized in that it is developed based on the needs, interests, and abilities of the students and the objectives, needs, resources, and repertoire of the teacher. Lesson planning provides for the logical, comprehensive development of instructional presentation. It insures that lessons are sequenced and contain all the techniques essential for student learning. Lesson plans make instruction more effective by assuring continuity of lessons and increasing confidence for the well-prepared instructor.

The Steps in Lesson Plan Development

A. Select from the occupational analysis a task or operation that the students must master.

B. Determine the objective of the lesson. Write in behavioral terms what students should be able to do upon completion of the lesson. (This could be a tentative objective because after consideration of the available material, equipment, supplies, and time schedule, certain learning experiences might not be possible, which would necessitate modification of the lesson objective.)

C. Determine how the instructor will evaluate the learning outcomes of the lesson. Evaluation techniques must be appropriate for the desired learning outcomes (e.g., a manipulative skill requires a psychomotor test).

D. Select appropriate instructional methods. Use task detailing to list all of the steps and key points to be learned. Consider the background and ability of the students; the instructor's own teaching repertoire; and the material, equipment, supplies, and time available. Use these considerations to filter selection of the most appropriate instructional method(s) to teach each step of the task. Include teacher questions and model answers. (See Chapter 6 of this handbook for suggestions regarding selection of appropriate teaching techniques and communication strategies.)

E. Determine student learning activities appropriate to the desired learning outcomes. Students must practice the type of behavior called for in the objective. Practice should take place under conditions found in industry.

F. Identify the equipment, tools, materials, and supplies needed by the instructor and the learners.

G. List all required teaching aids.

H. List the references that will be used for up-to-date information.

I. Plan a lesson summary that will emphasize main points to help students organize the content in their minds (provide closure), and remotivate them to retain and use what has been learned.

J. Plan an introduction that provides learners with the objective of the lesson and also motivates them to acquire the skill or master the information of this lesson. Relate this lesson to the learners' prior knowledge or experience.

K. Determine the time allotment for each section of the lesson.

K. Review the lesson objective and method of evaluation in final form. Include the conditions and standards of performance.

M. Review the written lesson plan. Think through the plan. Will it present the task in clear, logical order and provide appropriate practice for learners? Will it motivate students to learn? Try to foresee where the LEP students will have difficulty understanding and *write down* on your lesson plan some expressions or phrases in the students' native language(s) to help them understand. Get this information from a bilingual colleague or student. Perhaps the lesson summary (I) could be provided in the appropriate languages, either verbally or in writing.

N. After presenting the recently developed lesson, the instructor should make written comments on the plan while they are fresh in his/her mind. What went well? What should be changed?

OTHER SOURCES OF HELP

If you would like to learn more about vocational education course development, here are some good resources:

Mager, R.F. and K.M. Beach. *Developing Vocational Instruction*. Belmont, CA: Fearon, 1967. (An excellent introduction to vocational education course construction. This book is also available in Spanish, under the title *Enseñanza de los Oficios en la Escuela Vocacional*, through the European Book Company, 925 Larkin St., San Francisco, CA 94109.)

Popham, W.J. and E.L. Baker. *Planning an Instructional Sequence*. Englewood Cliffs, NJ: Prentice-Hall, 1970. (A very readable paperback. Also available in filmstrip form.)

Finch, C.R. and John R. Crunkilton. *Curriculum Development*

in Vocational and Technical Education. Boston: Allyn and Bacon, 1979. (A good overview of the entire curriculum development process.)

PRACTICE

1. Select a job title and write an appropriate job description.

2. Develop a task listing for the job you have described. In the case of a multi-duty job, list the tasks under appropriate duties.

3. Detail two of the tasks from your task listing.

4. Given a description of prospective students and the task listing you have developed,
   A. Design a course pretest
   B. Write a performance objective for each task
   C. Select appropriate methods of evaluation

5. Select a psychomotor task and develop a lesson plan to teach that task to your students.

6. Select a concept or principle and develop a lesson plan to teach that concept or principle to your students.

7. Which of the six items above should be translated into the native language of LEP students? Why did you choose those particular items?

CHAPTER VI
Techniques and Strategies in Bilingual Vocational Education

This chapter will first examine the teaching techniques and tools employed in bilingual vocational education programs and will then describe communication strategies for bilingual/multicultural vocational classes.

TEACHING TECHNIQUES

This section describes 20 teaching techniques which are utilized in classrooms and training centers throughout the country. Although any conscientious educator is aware of the "right" and "wrong" times to utilize a given technique, one must be extra sensitive when teaching students from various language, cultural, and national backgrounds. In addition to providing a description of each technique, we have attempted to include pertinent information about the appropriateness or inappropriateness of each technique for certain cultural groups. In these efforts, we have tried to avoid cultural stereotyping, and we have tried to remain conscious and sensitive to individual differences within given cultures.

When selecting appropriate teaching techniques for limited-English-proficient vocational students, three criteria should be satisfied:

1. *Educational Appropriateness*
   A teaching technique is selected, as discussed in Chapter 5, based on the objectives to be mastered, the student population, principles of learning, and available resources. To be educationally appropriate, the technique must permit the student to practice the type of behavior called for in the performance objective.

2. *Cultural Appropriateness*
   The technique and related experiences should be culturally appropriate to the learners.

3. *Affective Appropriateness*
   The resultant learning experience should serve to enhance the student's self-concept as a learner and a worthwhile human being.

Lecture

DESCRIPTION. A lecture is a one-way presentation given by a teacher to a class. The lecture may range in time from very brief (a lecturette) to an hour or more depending upon how interesting the topic is and upon the maturity level of the students.

PURPOSE. The purpose of a lecture can be to create interest, influence, impart information, or develop critical thinking.

SPECIAL CONSIDERATIONS FOR A MULTILINGUAL/ MULTICULTURAL SETTING. In global terms, lecture is probably the most commonly-used instructional technique. There is probably no cultural group in the U.S. for whom lecture would not be a culturally appropriate technique; however, many LEP students will find it difficult to comprehend the material when this technique is used. Thus, organize and prepare your lecture well, try to incorporate examples and words that the students can identify with, and keep the lecture short and simple. Provide the students with written material (e.g., a handout or outline on the chalkboard) on the same topic as the lecture before they hear the lecture. Afterwards, ask a bilingual student to summarize key points of the lecture in the LEP students' native language. Be sure to incorporate the communication strategies provided at the end of this chapter.

Demonstration

DESCRIPTION. A demonstration is a presentation for the purpose of showing students *how* to perform a particular process or procedure, or to help students understand a principle. When the goal of the demonstration is for the students to be able to perform the process or procedure themselves, it is important that the demonstrator give them clear directions for each step.

PURPOSE. The purpose of a demonstration can be to present the proper methods and procedures, introduce new and different techniques, illustrate hard to describe concepts and principles, or stimulate interest in a topic.

SPECIAL CONSIDERATIONS FOR A MULTILINGUAL/ MULTICULTURAL SETTING. Demonstration is especially appropriate for multicultural vocational settings. It is a technique which is employed throughout the world, and it will provide clear instruction for students who have difficulty understanding English and who cannot depend solely on the spoken word.

Questioning

DESCRIPTION. Questioning is the instructional technique of asking well planned questions to be answered by students. The type of questions used range from narrow ones that require memory or recall responses to those that require creative and more thoughtful responses.

PURPOSE. The purpose of questioning can be to arouse interest, focus on important details, determine comprehension, clarify information, and encourage divergent thinking.

SPECIAL CONSIDERATIONS FOR A MULTILINGUAL/ MULTICULTURAL SETTING. As in a monolingual English setting, you will find that some students respond to this technique better than others. Students who are limited-English-proficient may know the answer to a question, but may be unable or afraid to express it in English. Indochinese students have been known to avoid showing off and rarely volunteer answers. For students with English problems, form your questions so that answering will require a minimum amount of oral response. (See the section on Communication Strategies in this chapter.)

Laboratory

DESCRIPTION. The laboratory is the instructional technique whereby students can develop psychomotor skills and make practical applications of principles and concepts learned in the classroom.

PURPOSE. The purpose of laboratory experiences is to help students practice and master specific skills; apply abstract concepts to concrete tasks; and engage in creativity, decision making, and management skills while developing the ability to work with others.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Students from disadvantaged backgrounds or developing countries may not have had the opportunity to practice in a laboratory. It is especially important to make all of your students aware of safety practices *in their* *native language*. Be extra patient (but firm) with students who, through not knowing better, seem to be careless with or afraid to use equipment.

Discussion

DESCRIPTION. Discussion is large or small group problem analysis followed by consideration of alternatives, selection of the best solution, and possibly determining the means of implementing the solution. The discussion leader defines terms, clarifies the problem, starts the discussion, keeps the discussion moving, emphasizes important ideas, encourages broad participation of group members, and provides a summary.

PURPOSE. The purpose of discussion is to consider new goals and directions of the group, develop a topic of interest to the entire group, and clarify ideas after a lecture or demonstration. An example of the effective use of the discussion technique is when the teacher uses this method to have the class develop a set of safety rules. Rules developed in this manner are more readily adopted by class members than are those arbitrarily decreed by the teacher.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Teachers may find that students from certain cultural backgrounds (e.g., Indochinese, American Indian, and Mexican American) may refrain from participating in discussions more than others. For some, it is not considered culturally appropriate to "show-off" in front of others. For others, low self-concepts may make them afraid to participate. Students with limited abilities in English will obviously have difficulties with this technique, although it may provide excellent opportunities for more informal language development. Teachers should be patient with LEP students and allow them, if necessary, to express their views through a peer translator.

Inquiry

DESCRIPTION. Inquiry is the process of systematic problem solving by the students rather than by the teacher. The role of the teacher during inquiry is that of a coach and resource person who guides the students' investigations but permits and encourages them to derive *personal* meaning and understanding from the inquiry process.

PURPOSE. The purpose of the inquiry technique is to encourage students to be inquisitive and curious and to learn systematic methods of determining answers for themselves.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Although many LEP students will be unfamiliar with this technique, when employed successfully, students can benefit not only instructionally, but also through enhanced self-concepts as learners. When posing questions to guide student learning, provide translations of the questions to LEP students. If this is impractical, modify your questions as suggested in the Communication Strategies section of this chapter.

Assignments

DESCRIPTION. A task completed by a student in or out of class as a means of enhancing in-class learning experiences is an assignment. This technique is often implemented through an "assignment sheet" which directs the study of students.

PURPOSE. Assignments are used to contribute to student intellectual growth, reinforce learning experiences, and give students the opportunity to study a particular topic in-depth.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Assignments can provide limited-English-proficient students with fine opportunities to review what they have learned (or not learned!) with the use of a bilingual dictionary or tutor, or with an opportunity to review the material in their native language. It should not be difficult for vocational teachers to find someone to translate assignment sheets, if necessary. It should also not be difficult to modify assignment sheets for LEP students to include some special vocabulary practice.

Resource Persons

DESCRIPTION. Resource persons are individuals from businesses, industry, or the community who are invited to speak to the class on personal or professional experiences or to demonstrate processes or procedures.

PURPOSE. Resource persons are used to enhance the educational experience provided to students. Their expertise can help emphasize and clarify concepts; present procedures, material, and equipment not normally available; and generally enrich a lesson.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Guest speakers should enhance the learning experiences of bilingual as well as monolingual English-speaking students. It is important that invited guests be told beforehand that there will be listeners from various cultural backgrounds who may have limited abilities in English. The guest should be encouraged to make the presentation relevant to all listeners and to utilize the communication strategies provided at the end of this chapter. Better yet, invite a resource person who is bilingual and who can serve as a good role model for all your students.

Role Playing

DESCRIPTION. Role playing ranges from a dramatization where students are given information on a particular situation and told which parts they will play and how they will act, to spontaneous dramatizations which are not rehearsed and in which lives are composed on-the-spot. Any kind of conflict situation in which actual feelings are often concealed in real life provides an opportunity for role playing. An important part of this technique is debriefing after the dramatization: Having students discuss the emotions they felt during the role play.

PURPOSE. Role playing helps students study human relations problems and group behavior as well as gain insight into their own behavior. It provides an opportunity to discuss values as well as helping students develop interpersonal competence. (See the section on Microcounseling in this chapter.)

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Role playing may be a difficult technique to employ in multicultural settings. Students from many cultures may find this technique to be childish or silly. Others may lack the English skills to communicate effectively. Do not force students who feel uncomfortable to role-play. If requested, allow some students to role-play in their native language and have another student translate afterwards. Providing students with scripts ahead of time may alleviate some anxiety, although providing them with opportunities for free expression will certainly help their English language development. Final word—try it, proceed with caution, and read about microcounseling.

Learning Packages

DESCRIPTION. A learning package is all of the instructional materials and resources, including tests, that are needed for a given sequence of instruction. Learning packages are generally self-instructional and contain a variety of alternative learning activities to meet the learning needs and styles of different students. They are often kept in a special place in the laboratory or shop (referred to as a learning center or resource center). In general education, the resource center is often in a completely different room such as the school library. However, in the vocational education setting it is generally part of the regular classroom, laboratory, or shop.

PURPOSE. Learning packages are used to enable each student to proceed at his/her own pace and, therefore, to accommodate individual differences in learning.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/MULTICULTURAL SETTINGS. Learning packages are excellent for multicultural settings since they can be easily modified for limited-English-proficient students. Modifications may include providing all instruction or key points in the students' native language(s), or adding some VESL components.

Independent Study

DESCRIPTION. Independent study comprises those educational activities carried on by an individual student seeking self-improvement, and is often, but not always, self-initiated. The role of the instructor is that of a guide to available resources, and a counselor to the student. Independent study competence is fairly complex; therefore, a well-planned program begins with directed study, followed by semi-independent study, and ending with independent study.

PURPOSE. The basic purpose of independent study is to help students become self-directed learners.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/MULTICULTURAL SETTINGS. Independent study is an excellent means by which limited-English-proficient students can learn some vocationally-oriented English or some more about their chosen occupation in their native language. The teacher should find VESL or bilingual resources for the students and encourage them to study independently.

Structured Observation

DESCRIPTION. Structured observation involves preparing students to gain meaningful insight from observation of individuals in real life situations. Students are prepared prior to the observation so that they know what to look for in order to obtain the greatest value from the observation. Often students are given an observation checklist with space for writing comments to guide (structure) the observation.

PURPOSE. Structured observations are used to ascertain that the student observes all pertinent details during observations. They help students develop the ability to notice important details, and are often, but not exclusively, used in conjunction with field trips.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Structured observation is an excellent technique to utilize in multicultural vocational settings. Not only can students learn easily from observing, but checklists can readily be translated and provided to all students in bilingual or multilingual forms. In this way all students will have the same materials, no one will feel inadequate, and all can learn a few words in another language.

Case Method

DESCRIPTION. The case method involves a written account of a problem or situation that is shared with the students. The case presents all of the facts available to those facing the problem or situation, as well as a description of their perceptions and attitudes.

PURPOSE. The case method can be used to resolve problems or derive principles. It provides students with the opportunity to discuss the personal, real problems of people in an objective manner. It helps students analyze the behaviors of others, and make generalizations to other situations.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Since the case is provided to all students in writing, it should not be difficult to provide bi/multilingual cases, or multilingual synopses of the case. If translating is not possible or desirable, allow limited-English-proficient students more time to read the case and to look up new words in a bilingual dictionary. After the class has read the case, ask a bilingual student to verbally summarize the case in the non-English language. Also, allow students to express their views in their native language through a peer translator or aide.

Programmed Instruction

DESCRIPTION. Programmed instruction is a form of individualized instruction that involves (1) providing the student with small amount of information, (2) having the student actively respond to that information, and (3) giving the student feedback (reinforcement) regarding the appropriateness of his/her response. This three-step pattern is repeated over and over throughout the instruction. Programmed instruction comes in two general types: *linear,* which has all students proceed through every step of instruction, and *branched,* which takes individual student needs into account and has the advanced student skip unneeded steps of instruction.

PURPOSE. Programmed instruction is one of the effective methods of individualizing instruction *if* a program of the appropriate type and reading level is selected or designed.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Programmed instruction is an excellent technique for multicultural vocational settings. It is especially useful in settings where the students come from such varied backgrounds that they are all at different levels of occupational development. Programmed materials can easily be developed in several languages. If a transitional approach is desired, the materials can start off in the students' native language and in English and gradually move into only English. A transitional approach would be most effective if the students were concurrently receiving ESL or VESL instruction.

Panel

DESCRIPTION. A small group with a leader that discusses a problem or issue in the presence of the class. Panel members may be students or resource persons.

PURPOSE. The purpose of the panel is to develop a consensus of major issues rather than to reach a solution. This technique stimulates cooperative thinking among the panel and the class by offering several views for consideration.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Although many LEP students may feel afraid to participate in a panel, they should be encouraged to since they will have ample time to prepare their presentations beforehand. Limited-English students who do participate may prefer to read their presentations. Although reading should be permitted, they should nevertheless be encouraged to speak from notes (after having practiced several times at home). New (non-English-speaking) immigrants should be permitted to make a short presentaton in their native language so that they can begin participating in class activities immediately. This presentation can then be translated by a bilingual student.

Debate

DESCRIPTION. Generally two individuals or teams of speakers, one of which represents the "pro" and the other the "con" side of a particular topic. The "pro" team has the burden of proof and presents a position, evidence to support the position, and shows how the evidence supports the position. The "con" team supports the status quo or a counterposition. Each side presents their total argument (10 minutes at most), and each team has rebuttal time (5 to 10 minutes).

PUPROSE. The purpose of debate in educational programs is to increase students' ability to think critically. Many teachers use the debate technique when the processes of discussion break down and two opposing factions have been formed, e.g., when trying to arrive at a consensus on one particular activity in the vocational youth organization.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. As in the "panel" situation, LEP students may feel apprehensive about participating in a debate. Nevertheless, encourage them to do so. If absolutely necessary, they can read a prepared statement or response (in English) or speak in their native language and have a peer translate.

Field Trip

DESCRIPTION. A trip away from the school or training center which permits students to utilize such sources as business, industry, museums, and institutes. Field trips often include structured observation.

PURPOSE. The purpose of field trips is to expose students to new ideas and to broaden their horizons. Field trips also help validate the relevance of in-school learning experiences by relating them to real life.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Field trips provide excellent opportunities for limited-English vocational students to gain more insight into what life is really like on the job in the U.S. Students should be encouraged to ask questions through peer translators, if necessary. Especially sensitive teachers could use this opportunity to point out specific job behaviors which may differ from those in the students' home culture.

Brainstorming

DESCRIPTION. Brainstorming is the technique in which the class attempts to find a solution to a specific problem by gathering all of the ideas spontaneously generated by its members. Four rules are followed by the group:

1. Criticism is not permitted
2. "Freewheeling" is welcome (the wilder the idea, the better)
3. Quantity is wanted (the more ideas, the greater the likelihood of useful ideas)
4. Combination and improvement are sought

PURPOSE. Brainstorming helps students develop the ability to be spontaneous in expressing solutions to problems. It is also simply an excellent method of acquiring a number of ideas for later discussion.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Brainstorming is an appropriate technique for the multicultural class, although some students may be hesitant to participate. It would not be difficult to present the problem in both (or all) languages and for peer translators to help limited-English speakers to present their ideas. Some students may find this technique new and somewhat strange, but this does not mean it shoud be avoided.

Microcounseling

DESCRIPTION. Microcounseling uses the concepts of role playing and learning by doing to help individuals develop more effective interpersonal skills. An example of the use of microcounseling in the classroom will help to explain this technique.

A vocational teacher wants to help students be well prepared when they go on job interviews. The teacher's main concern is how the students act during the actual interview. The teacher wants to be certain that the students convey to the job interviewer that they are alert, interested, and actively listening to what the interviewer is saying. The teacher conducts the following microcounseling exercise.

A Sample Microcounseling Exercise

1. *Introduction by the teacher.* The teacher informs the students that they are working on developing basic listening skills for the employment interview. An important aspect of successful participation in an employment interview is the ability to listen and to hear the other person. Equally important is the need to *convey* to the interviewer that you are listening and interested. We are working on only one aspect of interpersonal communication. Do not worry about other dimensions at this time. Focus on just one skill during this exercise: How to let others know you are listening and interested.
2. *Develop the concept.* The teacher asks for two student volunteers to role play an employment interview. One student is to be the employment interviewer and tries hard to communicate with the job applicant. On the other hand, the second student, the job applicant, is to exaggerate and do as many things *wrong* in terms of listening as possible. The class is divided into groups of six students each. They observe the role played interaction (3 to 5 minutes is sufficient to make the point) and then make lists of what the job applicant "did wrong." They discuss and share their lists with the class. The class, then, has developed a list of "what listening is not." All that is needed for one to be an effective listener is to do the opposite of what was observed in the role play.

3. *Training.* A lecturette by the teacher follows, emphasizing the key concepts of listening as demonstrated and discussed in the role play session. The teacher summarizes by listing the three main ingredients of good attending behavior: (a) have relaxed natural posture, (b) maintain eye contact, and (c) do not topic jump or interrupt.
4. *Develop the model.* Another role play is held wherein the job applicant does a more effective job of listening and conveying interest. Once again the students observe and note differences between the two sessions.
5. *Practice.* Students then practice this exercise in pairs or trios within their groups so that the concept of attending behavior is learned experientially.

PURPOSE. The purpose of microcounseling is to help individuals develop more effective interpersonal skills. It is important to note that the specific skill being developed in the above exercise was defined and presented in concrete form *by the students themselves.* It is also important to note that reading is not required of the students in order to acquire the skill. Experience has demonstrated that this procedure can be used in almost any setting to help vocational students acquire a wide variety of interpersonal skills.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/MULTICULTURAL SETTINGS. The microcounseling format can be easily modified to accommodate students with limited abilities in English. Before beginning, present students with a list of vocabulary words which will be useful in the job interview situation. Next, review with them social behavior which is appropriate during a job interview situation, or whatever situation you have decided to use, in the U.S. This part may be conducted in the students' native language.

Using Instructional Aids

DESCRIPTION. Instructional aids include any special tools or equipment used for instructional purposes. These can include media equipment (printed, mechanical, or electronic) or objects.

PURPOSE. To improve educational services by illustrating concepts to clarify them and by providing more interesting and motivating instructional experiences.

SPECIAL CONSIDERATIONS FOR MULTILINGUAL/ MULTICULTURAL SETTINGS. Most experienced vocational teachers in multicultural settings agree that limited-English-proficient vocational students learn better with instructional aids. It is important, however, not to use these aids indiscriminantly. Below are a few suggestions.

1. Fit instructional aids to your instruction; don't fit your instruction to the aids.
2. Don't use films as a mere time filler. Choose an appropriate film and useful activities around the film. The following format is suggested:
   a. Prepare your multicultural class for what they are about to see and hear. View the film beforehand and jot down any words and expressions that your LEP students may have difficulty understanding. Go over these words before showing the film. It would also be advantageous to present the students with questions about the film, on the board or on an assignment sheet, *before* they see the film.
   b. Show the film.
   c. Discuss its content by discussing the answers to the questions.
3. Involve the students in the use of media equipment.

TYPES OF INSTRUCTIONAL AIDS.

1. Films—Can speed up or slow down motion so students can observe action in a manner that is impossible in real life.

Students often associate films with entertainment and find them to be especially attention getting and motivating.

2. Film strips—Are less expensive than films. They are convenient for personal viewing. Not only can students of any age run the equipment, they can even make the film strips.

3. Tape recorder—Makes it possible to store and retrieve sound three ways: reel-to-reel, eight-track, and cassette. Cassette recorders are generally the most convenient and reliable. Tape recorders together with assignment sheets make it easy to individualize instruction.

4. Television—
   a. Educational Television (ETV) is accessible to the public.
   b. Instructional Television (ITV) is created by and accessible only to TV's within a specific institution.

c. Videotape Recorder (VTR) makes it possible to store and retrieve sound and picture on an individual television set.

Television is an excellent means for motivating students and for individualizing instruction.

5. Opaque projector—Makes it possible to enlarge pictures, real objects, and printed material—anything that is opaque, including moving objects. For example, the intricate adjustment or calibration of a measuring instrument can be seen in full color movement through the opaque process.

6. Over-head projector—Makes it possible to enlarge figures and words which are displayed on a thermofax-made transparency or with a marker on a clear plastic sheet; many commercially prepared transparencies are available for vocational subject areas.

7. Computers—Are especially appropriate in multilingual settings and are the epitome of individualized instruction. Computer-assisted instruction (CAI) can be provided in several languages, and students can proceed at their own pace. Studies have shown CAI to be particularly beneficial to LEP students in that students can have total control over the pace of the instruction and receive private and immediate feedback to their responses. Computers are also known to provide creative instruction.

8. Bulletin board—A designated area used to display interest-generating materials relating to a simple concept with an instructional purpose in mind. Student involvement in visualizing ideas and designing the actual display is an excellent use of this effective teaching tool.

9. Charts and graphs—A way to present ideas and concepts in drawings and pictures as well as words in a logical, orderly manner. Charts indicating student progress through course objectives are often motivating to the entire class.

10. Displays/Exhibits—An arrangement of full size or simulated articles placed in a setting to communicate a particular idea. Displays and exhibits can help build interest in or revitalize a topic. Student involvement in planning and constructing helps to develop creative and artistic abilities, as well as a sense of responsibility, in students.

11. Flannel boards—A board covered with flannel or felt. A variety of pictures, cartoons, key words, and concepts with flannel, felt, or coarse sandpaper glued to their back can be placed on the board and can be readily moved to a variety of positions to stimulate student interest while highlighting important points.

12. Instruction sheets—A variety of written tools that are used to individualize instruction. Commonly used instruction sheets include: information sheets, job sheets, operation sheets, assignment sheets, problem sheets, and experiment sheets.

13. Flash cards—Words or pictures on cards that are flashed quickly in front of students for various purposes. The teacher of LEP students finds bilingual flash cards particularly useful.

14. Flip charts—Large sheets of paper such as newsprint paper combined like a tablet and often mounted on an easel. Flip charts can be used to present information such as charts, diagrams, sketches, key points of lecture notes, and a variety of similar material.

15. Models—Reproductions of objects from real life that have either been reduced or increased in size. Some have features simplified, while others have moving parts in order for students to see how things work.

Communication Strategies

In Chapter 3 and throughout this chapter, it was suggested that vocational instructors modify their communication styles to accommodate students who have difficulty understanding English. The following list provides some suggestions for communicating with limited-English-proficient vocational students. These suggestions should be applied to all the teaching techniques discussed in the previous section.

- Speak at a normal volume to limited-English-proficient students. Remember, they are not hard-of-hearing.
- Speak correctly and maturely. Remember that speaking too slowly or in "broken" English is how one speaks to small children, not to adults or young adults.
- Use appropriate words in English which you have heard students use and which you feel safe that they will understand. Make it a point to remember those words so you can use them in the future.
- Speak at a normal or slow-normal pace.
- Get *verbal* confirmation that students have understood you before moving on to something else. This means that you should not rely on their body language to determine whether you were understood, but try to elicit from them a paraphrase, comment, example, or question which confirms that what you said was clear.

- Use standard speech and try to avoid using too many colloquialisms until you hear students using them.
- Provide a paraphrase, comment, example, or question to the student's statement so that the student knows you understood.
- Give LEP students opportunities to answer questions in class by:

    —giving them yes/no questions
    —giving them either/or questions
    —allowing them to answer by pointing or demonstrating

- Learn at least a few expressions in your students' language(s) and use them when necessary to:

    —greet them
    —praise them
    —clarify a term
    —clarify a safety procedure

- Use a lot of gestures and body language to help convey your message.

PRACTICE

1. Of the several teaching techniques described, provide an example of a technique which would be associated with a *direct* teaching style and one which would be associated with an *indirect* teaching style.

2. Of the two teaching techniques you have selected, is one necessarily more effective than the other? Explain.

3. Return to the two lesson plans you developed in Chapter 5. Which teaching techniques did you choose for those lessons? How would you modify the techniques you chose for LEP students?

4. Referring to practice item # 7 in Chapter 5, on a separate piece of paper provide the actual translations for the items you chose to translate. These translations should be appropriate to you own class or to a hypothetical class described to you by your instructor. Afterwards. describe how you went about getting those translations.

APPENDICES

Appendix A
The Cloze Technique

The cloze technique was developed by John Bormuth and is described in the article "The CLOZE readability procedure" (*Elementary English,* April, 1968:429-436). Later you will learn to use other, more formal methods of determining the readability of printed material. However, the cloze technique will more than satisfactorily serve as a very rapid method of estimating whether students can read the printed material you intend to use in the instructional process. In fact, what is presented here is a modification of the cloze technique which makes it even easier for you to make reasonable estimates of readibility without technical training.

The Modified Technique.

Select a representative passage of the printed material you want to use. The passage should be about 250 words long.

1. Leave the first sentence of the selected passage as is.
2. Delete every fifth word in the remainder of the passage.
3. Place a blank line in the space where each word is deleted.
4. Have students read the passage and fill in the blanks.
5. If students can successfully fill in 80% of the blanks with appropriate words, it is reasonable to assume that they understand what they are reading.

Notes

1. The selected passage must be representative of the work from which it is taken. If the written matter becomes progressively more difficult, a number of representative passages must be used.

2. For students with severe reading handicaps, a word list from which they might select missing words could be supplied.

Appendix B
Test Construction

Test construction requires a thorough knowledge of the subject matter to be tested as well as the techniques of test construction and validation. Every vocational teacher is encouraged to refer to a standard text to obtain the background necessary to develop appropriate achievement tests. However, it is often useful to have a summary of essential information readily available for the interested teacher. Most important to the average vocational teacher is a summary of "how to plan the test" and "how to construct test items."

HOW TO PLAN THE TEST

The most frequently used method for planning the cognitive achievement test is the table of specifications. To develop a table of specifications, a teacher takes the following three steps:

1. Determine the topics that will be covered on the test.
2. Determine the proportion of the total test that will be devoted to each topic.
3. Determine the depth of knowledge that will be assessed for each topic.

The Topics to be Tested

The test may focus on specific performance objectives, or portions of the course textbook, or subjects covered during a segment of the course. The instructor lists these objectives, or chapters, or subjects as the topics to be tested.

The Proportion Devoted to Each Topic

The instructor first determines the overall length of the entire test (20 items, 40 items, or whatever is appropriate). Then the proportion of that total number of items to be devoted to each topic is determined. For example, in Figure 1 there are four topics listed. The instructor developing this test felt that each topic was equally important and, therefore, each of the four topics accounts for 25% of the test. In Figure 2, however, the instructor views the first topic as far more important than all of the other topics combined. Thus, almost 3/4 of the test will be devoted to Topic One.

The Depth of Knowledge to be Assessed

The instructor then determines whether simple recall or higher cognitive processes are required to ascertain whether students possess the required knowledge. Inspection of Figures 1 and 2 demonstrates that instructors use different words to identify different types (depths) of knowledge they will test. The wording used is not important as long as the meaning is clear to those who must use the table of specifications. Note that in Figure 1 a key is provided to be certain that the definition of each term is clear.

Figure 1

Table of Specifications Based on Course Content

	Relative Emphasis	*Basic Knowledge*	*Repair Knowledge*	*Diagnostic Knowledge*	*Item Totals*
Tune-Up	25%	5	4	4	13
Engine Repair	25%	5	4	4	13
Brakes	25%	3	5	4	12
Air Conditioning	25%	5	5	2	12
Totals	100%	18	18	14	50

KEY

Basic Knowledge—Identification of parts and principles of operation.

Repair Knowledge—Identification of malfunctions and repair procedures.

Diagnostic Knowledge—Testing procedures and determining effectiveness of work.

Figure 2

Table of Specifications Based on Performance Objectives

Topics	Relative Emphasis	Knowing	Understanding	Mastery	Item Totals
		(COGNITIVE TEST)			
1. List the meaning of drafting, types of people in drafting, what drawings express, types of drawings, and types of drafting to agree with Stan Ross' first four chapters of the *World of Drafting*.	72.5%	26	3	0	29
2. List the views used in an Orthographic Projection as per Stan Ross' text.	2.5%	1	0	0	1
3. Identify and/or list the proper methods of dimensioning and line characteristics as per Stan Ross.	22.5%	8	1	0	9
4. List the main differences between two similar types of drafting tools as per Stan Ross.	2.5%	0	1	0	1
TOTALS	**100%**	**35**	**4**	**0**	**40**

The value of a table of specifications is that it forces the instructor to make a "blueprint" for the test prior to any consideration of the type of items to be included on the test. After the table of specifications has been completed, the instructor knows the numbers and types of items that must be constructed for each topic to be tested.

HOW TO CONSTRUCT TEST ITEMS

Constructing test items requires following two sets of rules: the *general principles* for writing any test items, and the rules for constructing the *specific* types of items required for a particular test.

General Principles for Writing Test Items

Each specific type of test item is unique in construction. Therefore, certain rules apply to their construction. However, there are some general principles which apply to the test as a whole or to items in general which should be observed during test construction. These are:

1. During the early stages of test construction, each test item should be written on a separate 3 x 5 card. The item should be on one side of the 3 x 5 card with the correct response or answer on the reverse side. (Having test items on 3 x 5 cards permits the teacher to quickly select or rearrange items for a particular test. The teacher can easily add or delete test items from the "test item file" that is kept on these cards.)
2. Test items should only be used after they have been field tested for accruracy and clarity.
3. A good test emphasizes the application of materials learned rather than recognition.
4. Start with easy material and gradually add difficult items.
5. Be sure that the type of test item used for measuring each objective is the one that will best measure that objective.
6. Place similar types of test items together on the test.
7. Directions should be clear and specific. Provide examples to illustrate directions as needed. When appropriate, directions should be provided in all pertinent languages.
8. Items should be clear, free from ambiguities and involved sentence structure.
9. Tricky or catchy questions should be avoided.
10. There should be just one answer for each item.
11. A test should *never* be used as a punishment.

12. One item should neither be based upon the response to another statement nor provide the response clue to another item.
13. Eliminate the element of surprise.
14. Items should use vocabulary appropriate for the language and educational level of the students.
15. Items should be grammatically correct and free from spelling and typing errors.
16. Items should be realistic and practical; that is items should call for information that students must use.
17. Minimize or avoid the use of textbook or stereotyped language in phrasing items.
18. Single space within an item; double space between items. (Double space between the stem and the first alternative of a multiple-choice item.)

Rules for Constructing Specific Item Types

TRUE-FALSE ITEMS. The true-false item usually consists of a declarative sentence, which the student responds to by marking it true or false. For example:

______ The acronym VESL stands for vocational English as a second language.

______ The Vocational Education Act of 1976 provided funds for the vocational guidance and counseling of LEP individuals.

A. *Rules for Constructing True-False Items*

1. All items should be directly related to course content. They should not be irrelevant or impractical to an informed student.
2. Each item should contain a single major concept.
3. Trick or trivial items should not be used.
4. False items should be false because they contain an important concept which is incorrect. They should not be false merely because of an insignificant error.
5. Negative statements should not be used since they are easily misinterpreted, especially in false statements.
6. Double negatives should never be used.
7. Statements should be brief, but not at the expense of clarity. The suggested length is from 3 to 20 words. The use of sentences in excess of 20 words should be avoided because they are guessed true more than 50% of the time. The addi-

tion of dependent clauses and phrases reduces the probability of an item being false.

8. Statements containing specific citations or enumerations should be used with caution. Research indicates that such items are more often true than false.
9. The correct response should be based solely on the intended meaning of the statement. Specific determiners should not be used. Research indicates that strongly worded statements containing such words as all, always, exactly, never, totally, entirely, completely, solely, nothing, and alone are more often false than true.
10. Items should be true or false without qualifications. Research indicates that statements containing qualifiers such as sometimes, maybe, often, several, as a rule, should, may, most, some, and generally are more often true than false.
11. True statements should not be consistently longer than false statements.
12. Approximately equal numbers of true and false statements should be included in the completed test.
13. Broad generalizations, with or without qualifiers, should not be used.

B. *Sample Direction for a True-False Test*

Directions: Below are a number of statements, some true and some false. If a statement is true, place a "T" in the space provided to the right of the statement. If the statement is false, place an "F" in the space.

Example: (The teacher should place an example item here to help the student follow directions correctly.)

MULTIPLE-CHOICE ITEMS. The multiple-choice item usually consists of an incomplete declarative sentence or a question, referred to as a stem, followed by a list of four or five possible responses or alternatives, one of which is clearly correct or best.

Example 1:

Incomplete Sentence Type of Multiple-Choice Item

1. The stimulus statement or question of a multiple-choice item is usually referred to as a

______ a. Distractor ______ c Stem
______ b. Foil ______ d. Response

Example 2:

Question Type of Multiple-Choice Item

2. When were the first bilingual schools established on the North American continent?
   - _____ a. The late 1500's
   - _____ b. The late 1700's
   - _____ c. The late 1800's
   - _____ d. The late 1960's

A. *Rules for Constructing the Stem of a Multiple-Choice Item*

1. All test items should be related to course content. Items testing content not actually included in the course should not be used.
2. A collection of true-false items should not be presented as a single multiple-choice item.
3. To test the understanding of definitions, present the term as the stem and then state several definitions as the alternatives.
4. Items should be stated in a brief and concise manner.
5. The stem should be concerned with only one central problem.
6. The stem should not contain irrelevant material. (See example: General rules for writing test items.)
7. The stem may be a direct question or an incomplete statement.
8. All items should be stated positively, unless the student is required to select the alternative which is *unlike* the other alternatives.
9. The stem should contain the essential part of the problem. It should include all words that must otherwise be repeated in each alternative.
10. Do not use "a" or "an" as the final word of the stem if it serves as a clue to the correct response.

B. *Rules for Constructing the Alternatives of a Multiple-Choice Item*

The alternatives of a multiple-choice item consist of the correct response and three or four distractor (incorrect) alternatives.

1. Distractors (incorrect choices) should be composed of errors commonly made by students.
2. The content of all of the alternatives should be concerned with related concepts or data which are expressed in parallel construction.

Example

Poor: Typical LEP students are
- A. Poor speakers of their native language.
- B. Confused by the two languages.
- C. Less intelligent.
- *D. Limited speakers of English.

Better:
- A. Limited in their first language.
- B. Confused by the two languages.
- C. Apathetic in school.
- *D. Limited in English ability.

3. One choice should be clearly the best, but the others should appear plausible to the uninformed or partially informed student. Alternatives should not be included solely for the purpose of humor.
4. There should by only a single correct response. Sufficient evidence should be available to support the correct response.
5. All of the alternatives should be grammatically correct and consistent with the stem.
6. The same words should not be used in both the stem and the correct choice.
7. The use of the alternative "none of these" should be restricted to items to which an absolutely correct answer can be made.
8. The use of the alternative "all of these" is appropriate for a multiple-choice item. However, the choices "all of these" and/or "none of these" should be used in items where one of these choices is correct as well as in items where one or both of these choices are incorrect.
9. There should be either four or five alternatives.
10. A separate line should be used for each alternative.
11. It is better to use letters than numbers to identify alternatives.
12. The appropriate punctuation marks should be placed at the end of each alternative.
13. All of the alternatives in a particular item should be approximately equal in length.
14. Alternatives should be arranged so that the correct responses occur in a random order.
15. All alternatives should be as brief as possible.
16. Do *not* start a multiple-choice item on one page if it must be continued on another.

C. *Sample Directions for a Multiple-Choice Test*

Directions: This test consists of ________ multiple-choice items. Each item consists of a statement, a partial statement, or a question followed by four (or five) alternatives. Only one of these alternatives is correct. For each item select the alternative you believe is correct and place the letter next to the alternative in the space provided on the right.

IDENTIFICATION ITEMS. There are times when an identification exercise is the most appropriate means for assessing student achievement in a specific skill area, particularly when the problem statements and responses are homogeneous.

The learner responds to an identification exercise by matching or pairing statements, illustrations, symbols, or words in two columns of related material. The typical exercise consists of a list of problem statements in Column I (primary column) and a list of responses in Column II (response column). The usual procedure is to list more responses in Column II than problem statements in Column I.

Matching Exercise

Match the expressions in Column I with the appropriate meanings in Column II.

Column I		*Column II*
1. L.E.P.	________	a. home or native language
2. ESL	________	b. a person who speaks English
3. Dominant Language	________	c. limited ability in English
4. Transitional Bilingual Education	________	d. maintaining two languages in a school curriculum
5. Monolingual	________	e. teaching English overseas
		f. language one functions best in
		g. teaching English to L.E.P. students in the U.S.
		h. a person who speaks one language
		i. using two languages as a means to gradually learn only in English

WORD COMPLETION ITEMS. Word completion tests are merely positive statements in which a word, words, or a phrase has been omitted. They are among the easiest of tests to construct. The omitted words, or blank spaces, are filled in by the learner with what is believed to be the correct missing words. Test items are constructed by writing a complete phrase, then removing a key word or words that test the learner's knowledge.

Example of a word completion item.

> Bilingual Education is the use of two languages, one of which is ________________, as media of instruction in a classroom or school program.

A. *Rules for Constructing Word Completion Items*

1. All items should be directly related to course content. They should not be irrelevant or impractical to an informed student.
2. Each item should contain a single major concept.
3. Trick or trivial items should not be used.
4. Limit each item to a single sentence.
5. Keep blanks toward the end of the sentence.
6. Leave ample room to write response.
7. Keep blanks the same size in all test items requiring a word or individual words as the answer.
8. Provide a separate blank for each individual word answer in the test item.
9. Provide a long line when a phrase is the expected answer.

B. *Sample Directions for a Word Completion Test*

Directions: Fill in the blank or blanks in each statement below with the word or words that make the statement correct.

ESSAY ITEMS. The essay test usually consists of a question or questions beginning with or including such directions as "discuss," "explain," "outline," "compare," and "describe." Unlike other test items described here, there generally isn't one "correct" answer for an essay item. The student is allowed comparative freedom with respect to the wording, length, and organization of his/her answer. That is why essay tests are *not* regarded as objective.

Example essay test items.

1. Explain the process of task analysis.

2. Compare transitional bilingual instruction with maintenance bilingual instruction.
3. Discuss "the old Bilingual Education."

A. *Rules for Constructing Essay Test Items*

1. All test items should be related to the course content. Items testing content not actually included in the course should not be used.
2. A mere list of facts should not meet the requirements; some explanation should be required.
3. Make questions clear and definite.
4. Indicate an approximate time limit for each essay item.
5. Allow ample time for slow writers to complete the essay items.
6. An ideal answer should be written by the teacher before an essay item is included in a test.
7. The instructor may wish to provide essay questions and/or receive responses in LEP students' native language(s).

B. *Sample Directions for an Essay Test*

Directions: Read the question or questions carefully before attempting to answer. Write the answers on your standard answer sheet. Be accurate and neat in your work. When calculations are required in order to arrive at the answer, show all work on the answer sheet.

SHORT ANSWER ITEMS. The short answer test may be thought of as a structured short essay. It simply asks the questions: What? When? How? Why? and Where? The responses are less lengthy than in a short essay; very often a correct response may be made in a single word. The short answer test can promote "thinking a question out" and yet not penalize the learner who has little writing ability.

Example of a short answer item.

What does transitional bilingual education mean?

A. *Rules for Constructing Short Answer Items*

1. All items should deal directly with the material covered.
2. Center questions on one idea only.
3. All items should be asked as a question.
4. Form definite, short, concise, clear questions.

5. Avoid suggestive questions.
6. Avoid suggesting an answer to one question by a later one.
7. Allow ample time for slow writers to complete the test.
8. Try not to use items which may be more appropriately used as true-false or yes-no items.

B. *Sample Directions for a Short Answer Test*

Directions: Read the questions carefully before attempting to answer. Answer each question, in the space provided, with a single word, phrase, or short sentence.

PERFORMANCE ITEMS. A performance, or practical, test is given to measure a learner's ability to perform an actual manipulative task. In a performance test a task is identified, and the observer, usually the teacher, determines how well the task was performed. Performance tests are essential to all vocational education students, especially those who have difficulty reading and writing English.

A chart, or list, of the activities the learner is expected to accomplish must be made and used during the observation to check the learner on all points of the overall task. This chart can best be made by observing the task being properly performed. The key elements of the task can be listed in the sequence in which they occur. Task detailing as described in Chapter 5 of this handbook is an excellent method of obtaining the key elements of any task.

The learner should be given a test paper, just as in any other test, which will outline the test procedures and the directions he/she must follow to complete the test. Information contained in the test paper should also include, when appropriate, a list of materials required to complete the task and a list of factors upon which the student will be rated. If necessary, this paper should be provided in the students' native language(s).

A. *Rules for Constructing a Performance Test*

1. Provide or make available all the necessary tools and materials required to complete the test.
2. Be sure the learner understands exactly what he/she is expected to do.
3. Provide adequate space.
4. In early performance tests, do not include time as a factor.

5. Check results, where applicable, with the same instruments used by the learner.
6. Do not permit other learners to heckle the examinee.
7. Try to remain as unobtrusive as possible while observing.
8. Do not "help" the examinee while you are observing performance by handing him/her tools, materials, or advice.

B. *Sample Directions for a Performance Test*

Directions: This test has been designed so that when you complete it, it will be possible to determine just how well you can perform certain fundamental operations in installing, post checking, and demonstrating a washing machine. Your ability to write up a service order is also determined. You will be rated on the basis of:

1. Correct setup
2. Sequence of operations
3. Thoroughness
4. Handling of tools
5. Time required (sometimes)
6. Safe practices and precautions

You are to follow the instructions as outlined below.

ORAL TEST ITEMS. Oral test items have many advantages over written items, although they also have some disadvantages. The disadvantages of oral test items are: (a) students' ability to speak rather than actual knowledge may influenced by students' oral language abilities (b) subjectivity, (c) easy for student to "ramble" rather than directly answer the question, and (d) difficult to score. The advantages, in addition to being preferred over written exams by many students, are: (a) permits quick sampling of knowledge, (b) gives desirable experiences in oral expression, (c) develops habits of thinking quickly, (d) stimulates study, and (e) reduces the work of the teacher, thus permitting additional time for instruction.

Whether the oral test is worthwhile depends upon how it is used, how well it is conducted, and how well it is adapted to the group at the time it is given. Used properly, oral questioning is one of the most effective and efficient methods of instruction.

Students who have limited abilities in English may feel a great deal of pressure during an oral test. In these instances, it is essential to allow them to express their answers in their native language. If this opportunity is not provided and the student performs poorly, the instructor will not know whether this is due to a lack of knowledge of the test content or simply a lack of ability on the part of the student to express him/herself well in English.

A. *Types of Oral Questions*

Oral questions may be grouped roughly into two main types, namely: (1) those that call for factual answers (requiring rote memorization) and (2) those that call for thinking of a higher order.

Factual type questions may simply call for facts with no selective thinking, or they may be more involved and require short answers, with some reflection or thought. They are based more on memory than knowledge and understanding. Such questions, of course, are often very useful to a teacher and have an important place in the teaching situation.

Thought-provoking questions are of many types, and various phrases are commonly used and characterize such questions. While the phrase "what is" is used in many factual questions, effective thought-provoking questions commonly use more active verbs, such as *compare, explain, outline, describe, evaluate*, etc. Questions calling for comparisons, personal judgment, evaluations, or appreciations are extremely effective tools for the creative teacher.

B. *Rules for Constructing Oral Test Items*

1. Drill and memory questions should be concise and should elicit a similar response.

   Example: How many bones does the upper arm have?

2. Thought questions should be couched to stimulate thinking before a response is evoked.

   Example: Why should we use a tourniquet on the lower leg for a cut on the ankle?

3. Center the question on only one idea.
4. Adapt to the experience and ability of the learner.
5. Questions should be challenging to the class as a whole.
6. Phrase thought questions so that their responses will be independent of the wording and organization of the text.

Portions of this Appendix were adapted with permission from the Dade County Public Schools Performance Based Vocational Teacher Education Module PB-11 Tests and Test Construction.

7. Permit a pause between question and answer in thought questions.
8. The question must be grammatically correct.

Summary of Test Types

Type	*Application & Purposes*	*Weaknesses*
1. True-False	a. Easily scored & taken b. Useful to quickly check technical knowledge c. Appliable in checking knowledge of procedures	a. Encourages guessing b. Difficult to form unambiguous questions
2. Multiple-Choice	a. Can be used to measure understanding and judgment b. Can be used to check learner's ability to interpret, select, discriminate, and make applications of things learned	a. Often constructed to measure memorization only, rather than application b. Difficult to construct a good question so that one response is the correct one c. Difficult to construct test items which do not make incorrect responses obvious
3. Identification (Includes: Matching & order arrangement)	a. Can be used to measure learner's ability to remember proper names of tools, mechanical units, symbols, and specific parts b. Useful to measure ability of learners to analyze special difficulties or identify errors in drawings	a. Apt to require memory rather than thought b. May be difficult to construct if drawings are required
4. Completion	a. Useful in measuring retention of specific points b. Useful in checking: (1) Nomenclature (2) Function of parts c. Relatively easy to construct	a. Overemphasis on memorization b. Stresses speed and ability in reading

Summary of Test Types

Type	*Application & Purposes*	*Weaknesses*
5. Essay	a. Used to promote logical thinking b. Used to ascertain learner's organization of presentation c. Can be used to have learner write a description, make a comparison, or explain particular points of procedure	a. Time consuming for student b. Time consuming to score c. Lacks objectivity d. Penalizes the learner who cannot express himself/herself clearly in writing
6. Short Answer	a. Checks technical knowledge b. Checks nomenclature c. Promotes thinking d. Thoroughly checks material covered	a. Difficult to write definite and concise questions b. Can be difficult to score
7. Performance	a. Useful in checking manipulative skill b. Useful in checking work procedures c. Useful in checking speed d. Useful in observing safety precautions e. Useful in observing application of principles	a. Difficult to score accurately b. Difficult as far as setting up physical conditions goes
8. Oral	a. Encourages learners to express themselves b. Useful to discover way learner attacks question or problem c. Tends to promote alert attention d. Tends to foster logical thinking e. Promotes class discussions	a. Learner's ability to speak rather than knowledge may influence score b. Lacks objectivity c. Easy for learner to "ramble on" rather than directly answer question d. Difficult to score e. Difficult for LEP students, unless they can use their native language

Summary of Test Applications

Area to Measure and Assess	*Tests Which May Be Used*
1. Technical knowledge	True-False Short Answer Oral
2. Knowledge of procedures	Essay True-False Order Arrangement Short Answer
3. Understanding of lesson presented	Completion Short Answer True-False Oral
4. Names and nomenclature of parts, components, tools, equipment, etc.	Completion True-False Short Answer Multiple-Choice Identification Matching Oral
5. Function of parts, components, assemblies, etc. Methods of operation	Completion Essay Short Answer Multiple-Choice Identification
6. Ability to interpret and select	Multiple-Choice Identification Matching Performance
7. Manipulative skills	Performance
8. Safety practices	Performance
9. Ability to think and concentrate	Essay Oral Short Answer Performance

Appendix C

ASSESSMENT INSTRUMENTS

In Chapter 5, we suggested that vocational instructors describe their prospective students in order to develop a meaningful course for them. One of the three areas that instructors needed to take into consideration was education. Among the areas in which students should be tested are:

1. Oral/aural proficiency in English
2. Literacy in English
3. Literacy in their native language

Oral/Aural Proficiency in English

The following characteristics are thought to be most important when selecting appropriate oral English proficiency tests for adults:

1. An instrument that does not require any reading.
2. An instrument that is appropriate in content for adults.
3. An instrument that will elicit the student's ability to communicate a message as opposed to assessing formal grammatical correctness.

Examples:

Test	*Publisher*	*Description*
1. **Bilingual Vocational Oral Proficiency Test**	Melton Peninsula, Inc.	Four parts (30 min.): 1. Questions & answers 2. Open-ended interview 3. Imitations 4. Imperatives (based on colorful photos)
2. **Ilyin Oral Interview**	Newbury House	Picture-controlled interview
3. **Placement Test for Non-English Speakers**	Adult Basic Education, Brooklyn, N.Y.	Students respond to questions about themselves in an oral interview
4. **English Language Skills Assessment (ELSA)**	Newbury House	Oral proficiency test
5. **English as a Second Language Oral Assessment (ESLOA)**	Literacy Volunteers of America, Syracuse, N.Y.	Oral test which measures aural comprehension and production

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Literacy Instruments

When considering instruments for assessing literacy, the major concern should be to identify tests which contain a combination of appropriate content and level; that is, tests which are neither childish nor aimed at university-level adults.

Test	Publisher	Description
ENGLISH		
1. **Inter-American Test of Reading**	Guidance Testing Association	At the lowest level, students read a short passage and select an appropriate picture. It is felt that the pictures are too childish but that others can be substituted at the intermediate and advanced levels
2. **Reading Comprehension Test**	Departamento de Instruccion, Puerto Rico	Intermediate level reading comprehension test
3. **Prueba de Lectura en Ingles**	Departamento de Instruccion, Puerto Rico	Two (2) parts: Vocabulary and reading comprehension
SPANISH		
1. **Pruebas de Lectura en Español**	Departmento de Instruccion de Puerto Rico	Four levels, two parts each: Vocabulary and comprehension
2. **Individual Test of Spanish Reading**	Adult Basic Education Program, Brooklyn, N.Y.	Reading comprehension, passages, and multiple-choice questions in Spanish
CREOLE		
1. **Tés Lékti Kréyòl**	Jocelyne Levy, Coordinator, Creole-English Consulting Services, 15410 N.W. 31 Ave., Miami, FL 33154	Two parts: Decoding and comprehension

In Chapter 3, we suggested that the vocational counselor help LEP students choose an occupation. Although several commercially-available occupational interest inventories exist, we have found most of these to be inappropriate for LEP students.

The following occupational interest inventory was developed for use with refugees in Florida. This inventory could be filled out by the prospective student or by the counselor (for students who do not read). It could also be easily translated into any appropriate language.

*ADULT CUBAN IMMIGRANT PROJECT** *VOCATIONAL INTEREST INVENTORY*

Valores: Seguidamente veran ustedes catorce (14) diferentes condiciones que todos nos gustan existan en nuestros trabajos. Revise la lista y escoja las cuatro (4) mas importantes para usted.

____ 1. Seguridad de empleo: Tener un trabajo estable en el cual sean pocas las probabilidades de ser despedido.

____ 2. Prestigio: Tener un trabajo que provea posición social y respeto

____ 3. Buen salario: Que le paguen bien por su trabajo.

____ 4. Logros altos: Hacer algo de importancia o tener éxito en un trabajo que sea difícil

____ 5. Actividad Rutinaria: Un trabajo sin complicaciones y organizado, con la misma repetición.

____ 6. Variedad y diversidad: Tener la oportunidad de hacer diferentes tareas y no un trabajo aburrido.

____ 7. Creatividad: Tener un trabajo donde utilize la imaginación y la inventiva.

____ 8. Trabajar con su mente: Un trabajo que lo estimule intelectualmente y le permita usar sus capacidades mentales.

____ 9. Independiente: Le permite ser su propio jefe, trabajar con sus ideas sin que otra persona lo este supervisando.

____ 10. Relacionándose con el público: Bregar directamente con otras personas, ayudándoles a resolver sus problemas.

____ 11. Liderazgo: Ser responsable de dirigir el trabajo de otros y tomar decisiones que los afecten.

____ 12. Actividad física: Donde mayormente se utilize el esfuerzo y la capacidad física.

____ 13. Trabajar bajo supervisión: Trabajar bajo la dirección de otros y que le digan que va a hacer.

____ 14. Trabajo manual: Donde utilize sus manos, máquinas o herramientas para hacer o arreglar cosas.

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ADULT CUBAN IMMIGRANT PROJECT VOCATIONAL INTEREST INVENTORY

HABILIDADES

____ 1. Habilidad artística: Talento para el dibujo, la decoración, el diseño y la pintura.

____ 2. Habilidad musical: Cantar, tocar algun instrumento, composición musical, baile.

____ 3. Habilidad matemática: Facilidad para resolver problemas matemáticos y utilizar un buen razonamiento en la aritmética

____ 4. Habilidad científica: Comprensión de los principios científicos y trabajar con experimentos de laboratorio.

____ 5. Habilidad mecánica: Trabajar con herramientas y máquinas, entender su funcionamiento y hacer reparaciones.

____ 6. Habilidad manual: Trabajar con sus manos como en labores físicas, también costura y bordado.

____ 7. Habilidad social: Le es fácil trabajar y relacionarse con otras personas y le consideran ser una persona amistosa.

____ 8. Habilidad para enseñar: Instruir o enseñar a otros realizar alguna actividad.

____ 9. Habilidad para el liderato: Capacidad para dirigir actividades en grupos, organizar y desarrollar proyectos diversos. Otras personas le buscan a usted para que ayude a realizar algo.

____ 10. Habilidad en trabajo de oficina: Mecanografía, puede manipular diversas máquinas de tipo comercial, taquigrafía, es bien organizado en su trabajo.

Appendix D

SOURCES OF ESL INSTRUCTIONAL MATERIALS

Addison-Wesley Publishing Co.
2725 Sand Hill Road
Menlo Park, CA 94025

American Book Co.
450 W. 33 Street
New York, NY 10001

American Guidance Service, Inc.
Publishers' Building
Circle Pines, MN 55014

Bell & Howell
Audio-Visual Products Division
7100 McCormic Road
Chicago, IL 60645

Center for Applied Linguistics
3520 Prospect St., N.W.
Washington, DC 20007

Collier Macmillan International, Inc.
866 Third Avenue
New York, NY 10022

Thomas Y. Crowell
666 Fifth Avenue
New York, NY 10019

The Economy Co.
1901 N. Walnut
Oklahoma City, OK 73105

English Language Services
14350 N.W. Science Pk. Dr.
Portland, OR 97229

Fearon Publishers
6 Davis Drive
Belmont, CA 94002

Follett's Michigan Bookstore, Inc.
322 S. State Street
Ann Arbor, MI 48108

Georgetown University
Publications Dept.
School of Languages & Linguistics
Washington, DC 20057

Ginn & Co.
Xerox Education Group
191 Spring Street
Boston, MA 02173

Harcourt Brace Jovanovich, Inc.
757 Third Avenue
New York, NY 10017

D. C. Heath
125 Spring Street
Lexington, MA 02173

Holt, Rinehart & Winston, Inc.
383 Madison Avenue
New York, NY 10017

*Institute of Modern Languages
2622-24 Pittman Drive
Silver Spring, MD 20910

Jacaranda Press
872 Massachusetts Avenue
Cambridge, MA 02139

*Janus Book Publishers
2501 Industrial Parkway W.
Hayward, CA 94545

*Longman, Inc.
72 Fifth Avenue
New York, NY 10011

Los Angeles City
Unified Schools
3421 W. 2nd Street
Los Angeles, CA 90004

McGraw-Hill Book Co.
1221 Avenue of the Americas
New York, NY 10020

Melton Book Co., Inc.
111 Leslie Street
Dallas, TX 75207

*Milady Publishing Corp.
3839 White Plains Road
Bronx, NY 10467

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*Companies with VESL or prevocational ESL materials.

Newbury House Publishers, Inc.
68 Middle Road
Rowley, MA 01969

Oxford Book Co., Inc.
11 Park Place
New York, NY 10007

Oxford University Press
200 Madison Avenue
New York, NY 10016

Prentice-Hall, Inc.
Englewood Cliffs, NJ 07632

Rand-McNally & Co.
Box 7600
Chicago, IL 60680

Reader's Digest Service, Inc.
Educational Division
Pleasantville, NY 10570

***Regents Publishing Co., Inc.**
2 Park Avenue
New York, NY 10016

***Reston Publishing Co.**
Box 547
Reston, VA 22070

Frank E. Richards
Publishing Co.
324 First Street
Liverpool, NY 13088

***Scott, Foresman & Co.**
1900 E. Lake Avenue
Glenview, IL 60025

***South-Western Publishing Co.**
5101 Madison Road
Cincinnati, OH 45227

***Steck-Vaughn**
P.O. Box 2028
Austin, TX 78768

Teachers College Press
Teachers College
Columbia University
1234 Amsterdam Avenue
New York, NY 10027

University Center for
International Studies
Publications Section
218 Oakland Avenue
University of Pittsburgh
Pittsburgh, PA 15260

University of Michigan Press
615 East University
Ann Arbor, MI 48106

Appendix E

SELECTED SOURCES IN BILINGUAL VOCATIONAL EDUCATION

1. General Information about Bilingual Vocational Education

Adams, Susan. *Serving Students with Limited English Proficiency: A Guide for Kentucky Vocational Educators*. Bowling Green, KY: Center for Career and Vocational Teacher Education, Western Kentucky University, 1982.

______ and S. Taylor. *Bibliography of Curriculum Materials*. Bowling Green, KY: Center for Career and Vocational Teacher Education, Western Kentucky University, 1979.

Crandall, J. *Adult Vocational ESL.* (Language in Education Series, 22.) Washington, D.C.: Center for Applied Linguistics, 1979.

Department of Technology and Industrial Education. *Curriculum Development for Bilingual Vocational Education: Materials Modification and Translation*. New York: New York University. [ED 170 490]

Development Associates, Inc. *A Guide to Decision Making for Bilingual Vocational Materials Development*. Prepared for the U.S. Department of Health, Education, and Welfare, Office of Education, 1978. [ED 166 386]

______. *Handbook for Bilingual Vocational Materials Development.* Prepared for the U.S. Department of Health, Education, and Welfare, Office of Education, 1978. [ED 166 387]

English Language Resource Center. *A Guide to Manpower/Vocational ESL*. Washington, D.C.: Center for Applied Linguistics, 1981. [ED 188 499]

Hurwitz, A. *Bilingual Vocational Instructor Training*. Columbus, OH: Ohio State University, National Center for Research in Vocational Education, 1980. [ED 186 607]

InterAmerica Research Association, Inc. *Improving Techniques in Teaching English on the Job*. Rosslyn, VA: National Clearinghouse for Bilingual Education, 1982.

Kirschner Associates, Inc. *A Monograph for Bilingual Vocational Instructor Competencies*. Los Angeles, CA: National Dissemination and Assessment Center, California State University, 1980. [ED 195 826]

Lopez-Valadez, Jeanne. *Vocational Education for the Limited-English Speaking: A Handbook for Administrators*. Arlington Heights, IL: Bilingual Vocational Education Project, 1979.

National Clearinghouse for Bilingual Education. *Information Packet for Bilingual Vocational Programs*. Rosslyn, Virginia.

Rios, E. and W. Hansen. *Career and Vocational Development of Bilingual Students*. Columbus, OH: Ohio State University, National Center for Research in Vocational Education, 1978.

Troike, R. et al. *Assessing Successful Practices in Bilingual Vocational Training*. Rosslyn, VA: National Clearinghouse for Bilingual Education, 1982.

U.S. Department of Health, Education, and Welfare. *Opportunities in Bilingual Vocational Training.* (Small brochure.) Washington, D.C.: Office of Education. (O.E. Publication No. 79-09701)

2. A Selected List of Publishers of Bilingual and Non-English Vocational Materials

Publisher	*Vocational Areas*	*Language(s)*
Bilingual Publications Co. 1966 Broadway New York, NY 10023	Air-conditioning & refrigeration, auto mechanics, business education, commercial correspondence, electronics, health occupations, home economics, TV and radio repair	**Spanish**
Brolet Press 18 John Street New York, NY 10038	Electronics	**Creole** **Portuguese** **Spanish**
European Book Co. 925 Larkin Street San Francisco, CA 94109	Agribusiness, air-conditioning and refrigeration, auto mechanics, construction, data processing, electronics, health occupations, sewing, TV and radio repair, vocational teacher education	**Spanish**
Heffernan's Supply Co. 926 Fredericksbury Road Box 5309 San Antonio, TX 78201	Accounting, agribusiness, auto mechanics, commercial correspondence, construction, data processing, drafting, electronics, TV and radio repair	**Spanish**
McGraw-Hill 1221 Avenues of the Americas New York, NY 10022	Business education, drafting, machine shop, welding	**Spanish**
Milady Publishing Corp. 3839 White Plains Road Bronx, NY 10467	Cosmetology	**Spanish**
Minerva Book Company 137 W. 14 Street New York, NY 10011	Air-conditioning and refrigeration, auto mechanics, business education, health occupations, TV and radio repair	**Spanish**
Quality Book Co. 400 Anthony Trail Northbrook, IL 60062	Auto mechanics, construction, electronics, TV and radio repair	**Spanish**
South-Western Publishing Co. Dpto. de ediciones en español 5101 Madison Road Cincinnati, OH 45227	Business education	**Spanish**

Appendix F

CLASSROOM TERMINOLOGY AND EXPRESSIONS

English	*Spanish*	*Creole*	*Vietnamese*
1. BLACKBOARD	PIZARRA	TABLO	BẢNG ĐEN
2. BOOK	LIBRO	LIV	SÁCH
3. EXAM	EXAMEN	EKZAMIN	THI
4. GOOD	BIÉN	BON	TỐT
5. HOMEWORK	TAREA	DÉVOUA	BÀI LÀM
6. LISTEN	ESCUCHA (Sing.) ESCUCHEN (Pl.)	KOUTÈ	NGHE TÔI NÓI
7. NOTEBOOK	LIBRETA CUADERNO	KAYÉ	QUYỀN VỞ
8. NOTES	NOTAS	NÒT	GHI CHÚ
9. NO	NO	NON	KHÔNG
10. NOW	AHORA	KOUNIÉ-A	BAY GIỜ
11. PAPER	PAPEL	PAPIÉ	GIÂY
12. PEN	BOLÍGRAFO	PLIM	BÚT
13. PENCIL	LÁPIZ	KRÉYON	VIẾT CHÌ
14. PLEASE	POR FAVOR	SILVOUPLÈ	LÀM ƠN
15. READ	LEE (Sing.) LEAN (Pl.)	LI	ĐỌC
16. REVIEW	REVISA (Sing.) REVISEN (Pl.)	RÉVIZÉ	ÔN BÀI
17. SCHOOL	COLEGIO	LÉKÒL	TRƯỜNG
18. THANK YOU	GRACIAS	MÈSI	CÁM ƠN
19. TODAY	HOY	JODI-A	HÔM NAY
20. TONIGHT	ESTA NOCHE	ASOUÈ	TỐI NAY
21. WRITE	ESCRIBE (Sing.) ESCRIBAN (pl.)	ÉKRI	VIẾT

*The Spanish translations are provided only in the familiar forms. For certain groups, the polite forms may be more appropriate, and the teacher may have to consult with bilingual colleagues to determine which form should be used.

English	*Spanish*	*Creole*	*Vietnamese*
22. YES	SI	OUI	VÂNG
23. TODAY WE'RE GOING TO DISCUSS...	HOY VAMOS A DISCUTIR...	JODI-A NOU PRAL DISKITÉ...	HÔM NAY MÌNH SÈ NÓI VỀ...
24. DO YOU UNDERSTAND?	¿ENTIENDES? (Sing.) ¿ENTIENDEN? (Pl.)	OU KONPRANN?	(CÁC) EM CÓ HIỂU KHÔNG
25. DO YOU HAVE ANY QUESTIONS?	¿TIENES PREGUNTAS? (Sing.) ¿TIENEN PREGUNTAS? (Pl.)	OU GIN KÉSION?	(CÁC) EM CÓ MUỐN HỎI GÌ KHÔNG?
26. COPY THIS	COPIA ESTO (Sing.) COPIEN ESTO (Pl.)	KOPIÉ SA-A	CHÉP BÀI NÀY
27. TRY AGAIN	HAZLO OTRA VEZ HÁGANLO OTRA VEZ (Pl.)	ÉSÉYÉ ANKO	LÀM LẠI LẦN NỪA
28. TRANSLATE THIS	TRADUCE ESTO (Sing.) TRADUZCAN ESTO (Pl.)	TRADUI SA-A	DỊCH BÀI NÀY
29. WE'LL HAVE AN EXAM ON (day) ________	TENDREMOS UN EXAMEN EL ________	N-AP GIN EKZAMIN LÉ ________	MÌNH SẼ CÓ MỘT CÁI THI NGÀY ________
30. I WANT TO HELP YOU	QUIERO AYUDARTE (Sing.) QUIERO AYUDARLOS (Pl.)	MOUIN VLÉ ÉDÉ OU	TÔI MUỐN GIÚP EM
31. BE QUIET	SILENCIO	SILANS	IM LẶNG
32. THIS IS YOUR HOMEWORK	ESTA ES SU TAREA	SA-A SÉ DÉVOUA-OU	ĐÂY LÀ BÀI LÀM
33. TURN IN YOUR HOMEWORK	ENTREGA TU TAREA (Sing.) ENTREGUEN SU TAREA (Pl.)	RÉMET DÉVOUA-OU	GÓP BÀI LÀM
34. DID YOU DO YOUR HOMEWORK?	¿HICISTE TU TAREA? (Sing.) ¿HICIERON SU TAREA? (Pl.)	OU TÉ FÈ DÉVOUA-OU	(CÁC) EM CÓ LÀM BÀI LÀM KHÔNG?
35. COULD YOU EXPLAIN THIS TO (a person) ________?	¿PODRIAS EXPLICAR ESTO A ________?	OU KA EKSPLIKÉ-LI SA-A ________?	EM CÓ THỂ GIÀI NGHIÀ CÁI NÀY KHÔNG ________?

English	*Spanish*	*Creole*	*Vietnamese*
36. TURN TO PAGE ________	PASA A LA PÁGINA ________	VIRE NAN PAJ ________	MỞ TRANG ________
37. THIS IS EASY	ESTO ES FÁCIL	LI FASIL	CÁI NÀY RẤT LÀ DỄ
38. THIS IS DIFFICULT	ESTO ES DIFÍCIL	LI DIFISIL	CÁI NÀY RẤT LÀ KHÓ
39. OVER THE WEEKEND	DURANTE EL FIN DE SEMANA	NAN FIN SÉMINN NAN	TRONG NGÀY CUỐI TUẦN
40. GOOD MORNING	BUENOS DÍAS	BONJOU	CHÀO BUỔI SÁNG
41. GOOD AFTERNOON	BUENAS TARDES	BONSOUA	CHÀO BUỔI TRƯA
42. SEE YOU TOMORROW	HASTA MAÑANA	NA OUÈ DÉMIN	GẶP LẠI (CÁC) EM NGÀY MAI
43. NEXT WEEK	LA PRÓXIMA SEMANA	SÉMINN PROCHINN	TUẦN TỚI

Appendix G

MULTILINGUAL LEXICON OF SAFETY-RELATED TERMINOLOGY

English	*Spanish*	*Creole*	*Vietnamese*
1. ACCIDENT PREVENTION	PREVENCIÓN de ACCIDENTES	PRÉVANSION AKSIDAN	PHÒNG NGỬA TAI NẠN
2. CHECKLIST	LISTA de COMPROBACIÓN	LIS VÈRIFIKASION	BẶNG CHỈ DÃN TỪNG THỪ MỘT
3. CHEMICALS	PRODUCTOS QUÍMICOS	PRODUI CHIMIK	HÓA HOC
4. COLOR CODING	CÓDIGO de COLORES	KÒD AN KOULÈ	PHẬN CHIA THEO MẦU
5. DANGER	PELIGRO	DANJÉ	NGUY HIỂM
6. DEXTERITY	DESTREZA	ABILITÉ	KHÉO TAY
7. DO NOT ENTER	NO ENTRE (To a person) NO ENTRAR (For a sign)	PA ANTRÉ	CẤM VÀO
8. DO NOT INHALE	NO INHALE (Person) NO INHALAR (Sign)	PA RÉSPIRÉ	DỪNG HÍT VÀO
9. DO NOT PUNCTURE	NO PERFORE (Person) NO PERFORAR (Sign)	PA KRÉVÉ	ĐỤNG LÀM LỦNG LỖ
10. DON'T TOUCH THAT	NO TOQUE ESO (Person) NO TOCAR (Sign)	PA MANYIN SA-A	ĐỪNG DỤNG VẬT NẦY
11. DUCK DOWN	AGACHESE (Person) AGÁCHARSE (Sign)	BÉSÉ	CÚI XUỐNG
12. EAR PROTECTION	PROTECCIÓN PARA LOS OÍDOS	PROTEKSION ZORÈY	CHE CHỞ TAI
13. ELECTRICAL EQUIPMENT	EQUIPO ELÉCTRICO	ÉKIPMAN ÉLEKTRIK	DỤNG CỤ VỀ DIỆN
14. EMERGENCY	EMERGENCIA	IJANS	KHẨN CẤP
15. EXIT	SALIDA	SÒTI	CỬA RA
16. EXTERNAL USE ONLY	PARA USO EXTERNO SOLAMENTE	PA POU BOUÈ	CHỈ DÙNG NGOÀI DA

English	*Spanish*	*Creole*	*Vietnamese*
17. EYE PROTECTION	PROTECCIÓN PARA LOS OJOS	PROTÉKSION ZIÉ	CHE CHỞ MẮT
18. FIRE	INCENDIO	DIFÉ	LỬA CHÁY
19. FIRE BLANKETS	FRAZADAS PARA FUEGO	LINN DIFÉ	MỀN ĐỂ CỨU HỎA
20. FIRE DRILL	SIMULACRO de INCENDIO	ANTRÈNMAN POU DIFÉ	CHỤÔNG ĐỂ TẬP PHÒNG NGỪA LỬA
21. FIRE EXTINGUISHER	EXTINGUIDOR DE INCENDIOS	INSTRIMAN POU TIYÉ DIFÉ	BÌNH CỨU HỎA
22. FIRST AID	PRIMEROS AUXILIOS	PRÉMIÉ SOUIN	CỨU THƯƠNG
23. FLAMMABLE LIQUID	LÍQUIDO INFLAMABLE	LIKID KIKAB PRAN DIFÉ	CHẤT NƯỚC CHÁY DỄ DÀNG
24. GASOLINE STORAGE	TANQUE ALMACENAMIENTO de GASOLINA	DÈPO GAZ	CHỖ ĐỰNG XĂNG
25. GOGGLES	ANTEOJOS de PROTECCIÓN	LINÈT POU PROTÉJÉ ZIÉ	KÍNH ĐỂ CHE CHỞ MẮT
26. HAZARD	PELIGROSO	DANJÉ	NGUY HIỂM
27. HIGH VOLTAGE	ALTO VOLTAJE	GRO KOURAN KOURAN FÒ	ĐIỆN CAO THẾ
28. HOT	CALIENTE	CHO	NÓNG
29. IRRITANT	IRRITANTE	IRITAN	CHẤT HÓA HỌC LÀM KHÓ CHỊU
30. KEEP OUT	NO ENTRE (Person) NO ENTRAR (Sign)	RÉTÉ DÉYÒ	CẦM VAÒ
31. LIABILITY	RESPONSABILIDAD	RESKONSAB	CHỊU TRÁCH NHIỆM
32. LIGHTING	ALUMBRADO ILUMINACIÓN	LIMIÈ	LÀM CHO SÁNG
33. MAINTAINANCE	MANTENIMIENTO	KINBÈ AN BONÉTA	BAN SỬA CHỬA
34. MECHANICAL	MECÁNICA	MÈKANIK	MÁY MÓC
35. NO RUNNING	NO CORRA (Person) NO CORRER (Sign)	PA KOURI	CẤM CHẠY
36. NO SMOKING	NO FUME (Person) NO FUMAR (Sign)	PA FIMIN	CÂM HÚT THUỐC
37. NUMERICAL	NUMÉRICO	NIMÉRIK	VỀ SỐ

English	*Spanish*	*Creole*	*Vietnamese*
38. POISON	VENENO	POUAZON	THUỐC ĐỘC
39. PROTECTIVE EQUIPMENT	EQUIPO de PROTECCIÓN	EKIPMAN KI PROTÉJÉ	DỤNG CỤ CHE CHỎ NGƯỜI
40. RISK	RIESGO PELIGRO	RIS RISK	NGUY HIỂM
41. SAFETY CONSCIOUSNESS	CONCIENCIA de SEGURIDAD	KONNIN KI PRÉKOSION POU PRAN	ĐỂ Ý VỀ AN TOÀN
42. SAFETY INSPECTION	INSPECCIÓN de SEGURIDAD	INSPÉKSION SÉKIRITÉ	THANH TRA VỀ AN TOÀN
43. SAFETY RULES	REGLAS de SEGURIDAD	RÈGLÉMAN SÉKIRITÉ	LUẬT VỀ AN TOÀN
44. SLIPPERY	RESBALADIZO	GLISÉ	TRỎN
45. STAIRS	ESCALERA	ÉSKALIÉ	CẦU THANG
46. STEP DOWN	BAJE UN PASO (Person) BAJAR UN PASO (Sign)	DÉSANN	BƯỚC XUỐNG
47. STEP UP	SUBA UN PASO (Person) SUBIR UN PASO (Sign)	MONTÉ	BƯỚC LÊN
48. STOP	PARE (Person) PARAR (Sign)	RETÉ	NGỪNG
49. TURN CLOCKWISE ONLY	MUEVA SOLAMENTE EN EL SENTIDO del RELOJ	VIRÉ SÈLMAN NAN SANS ZÉGUI RÉVÈY	QUAY THEO CHIỀU KIM ĐỒNG HỒ
50. TURN COUNTER-CLOCKWISE	MUEVA SOLAMENTE EN EL SENTIDO CONTRARIO del RELOJ	VIRÉ NAN SANS OPOZÉ ZÉGUI RÉVÈY	QUAY NGƯỢC CHIỀU KIM ĐỒNG HỒ
51. VENTILATION	VENTILACIÓN	FÈ VAN	CHO THOÁNG KHÍ
52. WARNING	AVISO/ PRECAUCIÓN	AVI	COI CHỪNG
53. WATCH OUT	CUIDADO	ATANSION	NGÓ CHỪNG
54. WATCH YOUR STEP	CUIDADO	FÈT ATANSION	NGÓ CHỪNG BƯỚC ĐI
55. WET FLOORS	PISO MOJADO	ATÈ A MOUYÉ	XÀN ƯỚT

Appendix H

MULTILINGUAL LEXICON OF EMPLOYMENT-RELATED TERMINOLOGY

English	*Spanish*	*Creole*	*Vietnamese*
1. ABILITY	HABILIDAD	DON	KHẢ NĂNG
2. A MONTH	AL MES	YON MOUA	MỘT THÁNG
3. A YEAR	AL AÑO	YON ANÉ	MỘT NĂM
4. AN HOUR	POR HORA	LÈ	MỘT G̀IƠ
5. APPLICANT	ASPIRANTE SOLICITANTE	MOUN K-AP APLIKÉ-A	NGƯỜI XIN VIỆC
6. APPLICATION FORM	FORMA de SOLICITUD APLICACIÓN	FÒM APLIKASION	GIẤY ĐỂ XIN VIỆC
7. APPOINTMENT	CITA	RANDÉVOU	GIỜ HẸN
8. APPRENTICESHIP	APRENDIZAJE	APRANTISAJ	HỌC VIỆC
9. APTITUDE	HABILIDAD APTITUD	APTITID	KHẢ NĂNG
10. BIRTH CERTIFICATE	CERTIFICADO de NACIMIENTO	BATISTÈ	KHAI SANH
11. CIVIL SERVICE	SERVICIO CIVIL ADMINISTRACIÓN PÚBLICA	SÈVIS LÉTA	VIỆC LÀM CHÁNH PHỦ
12. CONTRACT	CONTRATO	KONTRA	CÔNG TRA
13. DEADLINE	FECHA LÍMITE	DÈNIÉ DÉLÈ	NGÀY CHÓT
14. DIPLOMA	DIPLOMA	DIPLOM	BẰNG CẤP
15. DRIVER'S LICENSE	LICENCIA de CONDUCIR LICENCIA de MANEJAR	LISANS POU KONDUI	BẰNG LÁI XE
16. EARN	GANAR	TOUCHÉ	KIẾM TIỀN
17. EMPLOYEE	EMPLEADO	ANPLOUAYÉ	NGƯỜI LÀM
18. EMPLOYMENT	EMPLEO	TRAVAY	CÔNG VIỆC LÀM
19. EMPLOYER	JEFE PATRÓN	PATRON	NGƯỜI XẾP

English	*Spanish*	*Creole*	*Vietnamese*
20. EXAMINATION	EXÁMEN	EKZAMIN	BAÌ THI
21. EXPERIENCE	EXPERIENCIA	EKSPÉRIANS	KINH NGHIỆM
22. FIRE (From a job)	DESPEDIR (Del trabajo)	RÉVOKÉ	ĐUỔI LÀM
23. FRINGE BENEFITS	BENEFICIOS MARGINALES	BÉNÉFIS NAN TRAVAY	NHỬNG TRỢ CẤP PHỤ TRỢ
24. GROOMING	ARREGLO	SOUIN KÒ	CÁCH ĂN MĂC GỌN GÀNG
25. HIRE	EMPLEAR	ANPLOUAYÉ	THUÊ LÀM
26. IDENTIFICATION	IDENTIFICACIÓN	IDANTIFIKASION	GIẤY CĂN CƯỚC
27. INTEREST	INTERÉS	INTÉRÈ	SỰ THÍCH THÚ
28. JOB	TRABAJO	TRAVAY DJOB	VIỆC LÀM
29. JOB INTERVIEW	ENTREVISTA de TRABAJO	RANDÈVOU TRAVAY	PHỎNG VẤN VỀ VIỆC LÀM
30. MARITAL STATUS	ESTADO CIVIL	ÉTA SIVIL	CÓ LẬP GIA ĐÌNH CHƯA
31. OCCUPATION	CARRERA	OKIPASION TRAVAY	LÀM NGHỀ GÌ
32. PENSION	PENSIÓN	PANSION	TIỀN ĐƯỢC TRỢ CẤP KHI VỀ GIÀ
33. PERSONNEL	PERSONAL	OFIS KI BAY DJOB YO (Office) MOUN NAN TRAVAY-LA (People)	SỞ NHÂN VIÊN
34. POLICY	POLÍTICA	RÈGLÉMAN	LUẬT LỆ
35. POSTURE	POSTURA	PÒZ	ĐIỆU ĐỨNG
36. PROMOTION	ASCENSO	PROMOSION	THĂNG CẤP
37. QUALIFICATION	CALIFICACIÓN	KALIFIKASION	CHỨNG NHẬN VỀ NHỮNG VIỆC DÃ LÀM
38. RECOMMENDATION	RECOMENDACIÓN	RÉKÒMANDASION	NGƯỜI GIỚI THIỆU
39. RESPONSIBILITY	RESPONSABILIDAD	RESKONSABILITÉ	BỔN PHẬN CÁ NHÂN TRÁCH NHIỆM

English	Spanish	Creole	Vietnamese
40. RESUME	RESUMEN HOJE de VIDA	KOURIKOULOM VITÉ	GIẤY DIỂN TẢ KHẢ NĂNG VA KINH NGHIEM
41. ROUTINE	RUTINA	ROUTI-N	CHUYỆN LÀM HÀNG NGÀY
42. SALARY	SUELDO	SALÈ	LƯƠNG
43. SELF-CONFIDENCE	CONFIANZA EN SI MISMO	KONFIANS NAN TÈT OU	TỰ TIN
44. SHIFT WORK	TRABAJO de TURNOS	TRAVAY KI GIN RÉLÈV	THAY ĐỔI GIỜ LÀM
45. SICK LEAVE	TIEMPO POR ENFERMEDAD	KONJÉ MALADI	NGHỈ BỆNH
46. SIGNATURE	FIRMA	[illegible]ATI	KÝ TÊN
47. SOCIAL SECURITY	SEGURO SOCIAL	SÉKIRITÉ SOSIAL	AN SINH XÃ HOI
48. SUPERVISOR	SUPERVISOR(A)	SIPÈVIZÈ	NGƯỜI XẾP
49. TALENT	TALENTO	TALAN	TÀI NGHỆ
50. UNION	SINDICATO	SINDIKA	HỘI NGHIỆP ĐOÀN
51. VETERAN	VETERANO	VÉTÉRAN	CỰU CHIẾN BINH
52. WANT ADS	ANUNCIOS CLASIFICADOS	ANONS PIBLISITÈ	RAO VẶT
53. WORK PERMIT	PERMISO DE TRABAJO	PÈMI TRAVAY	GIẤY CHO PHÉP ĐỂ ĐI LÀM
54. WORKING CONDITIONS	CONDICIONES de TRABAJO	KONDISION TRAVAY LA	TỈNH TRANG CHỔ LÀM VIỆC